

Appendix F

**Noise Modeling Results**

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## F1. Atmospheric Effects

## **Atmospheric Effects**

Atmospheric conditions such as wind speed, temperature, and humidity may effect noise levels as discussed in detail below (Caltrans 1998).

**Wind.** The effects of wind on noise are mostly confined to noise paths close to the ground due to the wind shear phenomenon. Wind shear is caused by the slowing down of wind in the vicinity of the ground due to friction. As the surface roughness of the ground increases, so does the friction between the ground and the air moving over it. As the wind slows down with decreasing height a sound velocity gradient is created due to differential movement of air with respect to the ground. This velocity gradient tends to bend sound waves downward in the same direction of the wind and upward in the opposite direction. The process, called refraction, creates a noise shadow (reduction) downwind from the source. In addition, wind may also result in a rumble due to friction between the air and a microphone of a sound level meter and result in contamination of noise measurements.

**Temperature Gradients:** In the troposphere, air temperature normally decreases with height above the ground according to the lapse rate, which is -1 degrees Celsius/100 m for dry air. Since the speed of sound decreases as air temperature decreases, the resulting temperature gradient creates a sound velocity gradient with height. Slower speeds of sound higher above the ground tend to refract sound waves upward in the same manner as wind shear does upwind from the source. The result is a decrease in noise. Under certain stable atmospheric conditions, however, temperature profiles are inverted, or in other words temperature increases with height. The inversion results in speeds of sound that temporally increase with altitude, causing noise refraction similar to that caused by wind shear downwind from a noise source. Inversions can effect noise propagation resulting in less than normal attenuation rates and thus increases noise. The effects of vertical temperature gradients are more important over longer distances.

**Temperature and Humidity.** Molecular absorption in the air also reduces noise levels with distance. Although this process only accounts for about 1 dBA per 300 m (1000 feet) under average conditions with respect to traffic noise, the process may cause significant longer range effects. Air temperature and humidity effect molecular absorption differently depending on the frequency spectrum and vary significantly over long distances in a complex manner.

**Rain.** With respect to traffic noise, wet pavement results in an increase in tire noise and a corresponding increase in frequencies of noise at the source. Since the propagation of noise is frequency dependent, rain may also effect distance attenuation rates. On the other hand, traffic generally slows down during rain, decreasing noise levels and lowering frequencies. Different pavement types interact differently with tires when wet than compared to when dry. Furthermore, noise measurements should not be conducted during rainy conditions.

## F2. Ambient Noise Surveys

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
1	1	2-Jul	39.3	74.6	58.6	29.9	41.6	40.3	37.9	36.8	35.8	34.1
1	2	2-Jul	41.5	77	62.2	32.1	43.7	41.4	38.7	37.6	36.7	34.9
1	3	2-Jul	38.6	74.2	60.3	28.6	40.7	38.7	35.8	34.6	33.4	31.5
1	4	2-Jul	34.2	69.8	48.9	27.4	37	35.9	34.2	33.1	32.1	30.4
1	5	2-Jul	35.8	71.4	62	26.3	36.5	34.6	32.3	31.4	30.4	28.7
1	6	2-Jul	47.9	83.5	74.7	25.8	40	38.3	34.2	32.2	30.4	28.2
1	7	2-Jul	38.2	73.7	52.5	29.1	42.9	41.2	37.1	35.3	34.2	32.3
1	8	2-Jul	40	75.6	59.2	28.9	43.7	42.5	39.6	38.2	36.9	34.1
1	9	2-Jul	44.9	80.5	55.2	37.1	48.3	47.4	45	43.9	42.9	41.1
1	10	2-Jul	45.9	81.5	53.5	41.8	48.8	47.8	46.2	45.4	44.6	43.5
1	11	2-Jul	46.8	82.4	54.7	42	49.7	48.9	47	46.3	45.6	44.3
1	12	2-Jul	41.3	76.8	49.6	30.7	46	45	41.8	39.7	37.6	33.1
1	13	3-Jul	37.5	73.1	61.9	31	38	37.7	36.3	35.3	33.8	32.5
1	14	3-Jul	41.2	76.7	62.1	30.1	41.4	38.2	37	36.5	35.9	33.8
1	15	3-Jul	33.6	69.1	57.5	28.4	34	33.7	32.4	30.8	30.1	29.2
1	16	3-Jul	32.1	67.6	42.2	29.4	33.9	33.3	32.2	31.7	31.3	30.4
1	17	3-Jul	38.6	74.1	49.6	28.3	44.9	43.5	36.9	32.1	30.6	29.4
1	18	3-Jul	41.3	76.8	53.2	32.8	45.2	44.1	41.6	40.5	39.2	36.3
1	19	3-Jul	42.1	77.6	68.4	31.4	46.6	43.7	39.4	37.3	35.7	33.6
1	20	3-Jul	38.5	74	53.4	30.3	43.3	40.5	37.1	35.6	34.4	32.7
1	21	3-Jul	37.8	73.4	58	28.5	42.7	40.2	35.4	33.6	32.5	30.8
1	22	3-Jul	37.9	73.4	52.6	28.2	42.5	41.2	38	35.7	33.9	31.6
1	23	3-Jul	40	75.6	61.1	27.1	44.6	42	38.9	36.9	35.2	32.5
1	24	3-Jul	40.4	74.7	57.8	28.1	44.8	41.4	36.2	34.3	32.9	31

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
	2	5-Jul	42.2	77.8	55.2	30.1	46.7	45.3	42.3	40.6	38.8	35.8
	2	5-Jul	42.1	77.7	52.8	31.1	46.8	45.4	42.2	40.4	38.7	35.4
	2	5-Jul	44.3	79.9	62.3	32.4	49	45.8	41.9	40.3	38.9	36.3
	2	5-Jul	39.5	75.1	50.6	29.9	44	42.9	39.8	38.1	36.4	33.2
	2	5-Jul	41.8	77.4	61.6	30.5	46	43.8	40	38.2	36.7	34.1
	2	5-Jul	45.1	80.7	58.8	34.2	49.5	48	44.6	43.1	42	39.9
	2	5-Jul	46.3	81.9	60.9	33.5	51.4	49.7	46.1	44.2	42.1	38.1
	2	5-Jul	42.9	78.5	57.3	30.5	48.3	46.4	42.3	40.3	38.3	34.9
	2	5-Jul	43.3	78.9	58.1	31.1	50	47	40.1	37.5	35.8	34
	2	5-Jul	48.9	84.5	56.9	36	52	51.5	49.9	48.6	47	43.6
	2	5-Jul	50.1	85.7	58.3	41.2	52.8	52.1	50.6	49.8	49	46.9
	2	5-Jul	50.1	85.6	57.6	39.7	53.1	52.4	50.5	49.6	48.7	46.2
	2	6-Jul	49	84.5	56.6	37.2	52.8	51.8	49.5	48.2	46.8	44
	2	6-Jul	44.2	79.8	54.3	32.7	48.4	47.3	44.3	42.9	41.6	39.4
	2	6-Jul	43.8	79.3	61.7	33.8	48.8	47.4	43	41	39.5	37.3
	2	6-Jul	41.2	76.8	51.5	32.3	46	44.1	41.1	40	38.9	37
	2	6-Jul	39.9	75.5	50.8	33	43.2	41.9	39.9	39	38	36.3
	2	6-Jul	43.2	78.7	57.6	33.2	48.3	46.3	42.1	40.8	39.7	37.1
	2	6-Jul	43.4	79	58	35	45.9	45.1	43.6	42.8	41.9	39.8
	2	6-Jul	42.7	78.2	52.7	35.2	46.3	45	42.8	41.7	40.4	38.3
	2	6-Jul	45.4	81	57.7	37.3	49.7	48.5	45.3	43.7	42.3	40.4
	2	6-Jul	50.3	85.9	70.6	38.1	54.3	53.1	50.3	48.5	46.9	43.8
	2	6-Jul	50.8	86.4	60.6	40.2	55.3	54	50.9	49.4	47.7	44.6
	2	6-Jul	51.4	85.2	63.3	39.5	56.1	54.3	50.8	49.3	47.7	44.4

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
3	1	9-Jul	57.5	93	64.7	48.5	59.9	59.2	57.8	57.2	56.5	54.7
3	2	9-Jul	56	91.6	63.5	46.1	58.7	58.1	56.7	55.9	55	52.6
3	3	9-Jul	57.5	93.2	62.3	52.8	59.6	59	58	57.5	56.9	55.7
3	4	9-Jul	55.3	90.9	62.3	43.4	58.8	58.4	56.8	54.6	51.9	48.1
3	5	9-Jul	53.4	89	59.1	44.5	55.9	55.3	54	53.2	52.4	50
3	6	9-Jul	52.5	88.1	59.7	42.7	55.7	55	53.7	52.7	49.9	45.7
3	7	9-Jul	46.3	81.9	55.3	41.6	49	48.3	46.5	45.7	45	44
3	8	9-Jul	47.2	82.8	54.9	42.6	50.6	49.8	47.6	46.3	45.3	44.1
3	9	9-Jul	45.3	80.9	65.3	35.5	48.6	47.5	45.5	44.4	43.1	37.9
3	10	10-Jul	38	73.5	52.2	32.2	42.6	40	36.4	35.6	35	34.1
3	11	10-Jul	39.6	75.1	59.6	31.9	41.2	38.6	36.5	35.8	35.2	34.2
3	12	10-Jul	38.4	74	54.3	31.5	40.2	39	37	36.2	35.3	33.8
3	13	10-Jul	35.6	71.1	55.6	31.3	37.8	36.9	35.1	34.3	33.6	32.5
3	14	10-Jul	38.5	74.1	51.2	30.4	42.7	41.3	38.7	37	35.3	32.5
3	15	10-Jul	46.8	82.4	62.5	39.3	52.8	50	45	43.5	42.5	41.2
3	16	10-Jul	51.4	86.9	61.4	41.4	55.4	54.4	51.7	50.3	49.1	46.6
3	17	10-Jul	49.3	84.9	61.9	40.6	53.4	52.1	49.4	48.3	47.1	44.7
3	18	10-Jul	50.7	86.3	64.8	41.8	55.2	53.8	50.4	48.7	47.2	45
3	19	10-Jul	50.7	86.2	66.7	39.8	55.3	53.8	49.4	47.6	45.8	43
3	20	10-Jul	52.1	87.6	74.1	41	56.7	55.5	51.8	49.6	48	45.8
3	21	10-Jul	52.1	87.7	66.2	42	56.3	54.9	51.7	50.3	48.8	45.9
3	22	10-Jul	54.9	90.5	78.3	39.5	56.2	54.3	50.3	48.5	46.8	43.6
3	23	10-Jul	53.7	89.3	79.3	42.3	57.5	56.1	52.7	51	49.5	46.6
3	24	10-Jul	52.7	88.2	61	41.4	57.1	56	52.9	51.4	49.8	46.8

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
4	1	10-Jul	44.5	78.3	65.4	32.5	47.6	45.4	41.5	39.9	38.6	36.1
4	2	10-Jul	42.6	78.2	56.8	33.8	46.4	44.6	42.3	41.3	40.3	38
4	3	10-Jul	45.8	81.3	62.3	38.9	49.4	47	44.3	43.3	42.5	41.1
4	4	10-Jul	46.4	82	68.5	39.2	49.1	46.5	44	43.3	42.6	41.4
4	5	10-Jul	45.7	81.3	62.4	39.5	50.8	46.5	43.5	42.8	42.2	41.2
4	6	10-Jul	44.1	79.7	62.3	38.7	45	44.2	43	42.5	42	41.1
4	7	10-Jul	44.5	80.1	66.1	39.5	45.5	44.8	43.6	43.1	42.5	41.6
4	8	10-Jul	43.3	78.9	58.1	38.9	45.1	44.4	42.9	42.4	41.8	41
4	9	11-Jul	42.6	78.1	54.1	37.2	45.2	44.3	42.7	42.1	41.4	40.1
4	10	11-Jul	44.3	79.9	59.5	37.4	47.6	45.9	43.5	42.5	41.6	40.1
4	11	11-Jul	43.3	78.9	57.1	37.9	46.5	45.1	42.9	42.1	41.4	40.3
4	12	11-Jul	44.2	79.7	58.7	36.5	48.7	46.8	43	41.8	40.9	39.5
4	13	11-Jul	46.7	82.3	66.2	37.9	50.6	48.7	45.4	44	42.9	40.9
4	14	11-Jul	49.8	85.4	67.9	37.8	56.2	51.8	44.7	43.2	42	40.4
4	15	11-Jul	52	87.5	68.2	37.9	59.2	56.5	47.6	44.9	43.1	40.9
4	16	11-Jul	52	87.6	68.9	38.7	58	55.4	49.3	46.8	44.9	42.5
4	17	11-Jul	52.6	88.2	69	37.4	59.5	56.5	49	46.7	45	42.2
4	18	11-Jul	52	87.5	68.3	37.1	58.7	56	48.4	46.2	44.3	41.8
4	19	11-Jul	52.5	88.1	68.1	37.1	58.9	56.4	50.2	47.1	45	42
4	20	11-Jul	51.9	87.5	69.1	36.3	58.7	55.8	48.1	45.4	43.4	40.4
4	21	11-Jul	52.6	88.2	70.5	34.8	59.7	56.5	47.1	44.2	41.8	39
4	22	11-Jul	51.1	86.7	69.7	34.3	58.1	54.9	45.7	43	41.1	38.5
4	23	11-Jul	52.6	88.2	70.2	33.9	59.5	55.9	46.3	43	40.7	38
4	24	11-Jul	48.7	84.3	66.4	33.5	55.9	50.7	43	41.1	39.7	37.4

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
5	1	25-Jul	68.9	104.3	93.9	42	75.2	72.6	61.7	56.1	51	46.1
5	2	25-Jul	68.4	104	87.2	41.5	75.3	73.1	64	58.3	53.5	46.9
5	3	25-Jul	68.1	103.7	86.4	41.5	75.3	72.9	62.5	57.4	52.5	47.6
5	4	25-Jul	68	103.6	83.1	42.4	75.3	73	63.5	58.8	54.5	48.9
5	5	25-Jul	68.8	104.3	87.9	40.5	75.7	73.4	64.3	59.3	55.2	48.9
5	6	25-Jul	69	104.6	86.5	40.1	75.9	73.9	65.1	59.7	54.5	48.1
5	7	25-Jul	68.1	103.6	86.4	40.8	75.3	72.9	62.9	58.1	53.9	47.3
5	8	25-Jul	67.8	103.4	86.9	41.6	74.7	71.9	63	58.5	54.1	48
5	9	25-Jul	63.1	98.6	80.3	37.7	69.9	67	59.2	54.8	50.5	45.6
5	10	25-Jul	63.3	98.9	82.9	44	69.4	67	60.6	56.9	53.1	48.1
5	11	25-Jul	64.4	100	86.3	45.2	69.7	67.6	62.5	59.4	56.3	50.2
5	12	25-Jul	66.7	102.3	80.8	46	72.5	70.4	65.8	63	60.4	55.4
5	13	25-Jul	62.7	98.3	85.2	44.4	68.7	66.4	60.3	57.1	53.7	48.8
5	14	25-Jul	57.9	93.4	74.7	42.2	64.2	61.2	54.6	51.3	49.1	46.7
5	15	25-Jul	58.4	94	76.5	41	64.3	61.8	55.9	53.1	50.5	47
5	16	25-Jul	59.1	94.7	77.4	40.5	64.9	62.6	56.7	53.4	50.4	46.6
5	17	25-Jul	58.7	94.2	79.6	38.7	64.1	61.4	53.9	49.6	46.5	43.1
5	18	26-Jul	59.7	95.3	82.6	38	64.9	61.6	50.9	46.7	44.5	41.7
5	19	26-Jul	56	91.5	75.7	37.2	63.1	59.2	47.8	44.7	42.9	40.6
5	20	26-Jul	55.3	90.9	74.7	37.9	62	59	50.6	46.1	43.5	41
5	21	26-Jul	52.3	87.9	73.1	36.7	59.5	55.7	45.8	43	41.3	39.3
5	22	26-Jul	55.4	91	82	36.4	58.5	53.9	47.5	45.4	43.3	40.2
5	23	26-Jul	60.6	96.2	81.8	37.1	66.2	61	53.2	50.4	48.8	45.8
5	24	26-Jul	65.5	101.1	85.9	44.5	72.7	68.6	58.6	55.2	52.6	49.6

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
6	1	6-Aug	49.2	84.8	71.6	40.5	53.7	50.9	47.4	46.1	45	43.2
6	2	6-Aug	47.2	82.8	58	39	50.6	49.6	47.5	46.4	45.3	43.3
6	3	6-Aug	48.3	83.9	71.4	39.6	51	49.7	47.3	46.2	45.1	43
6	4	6-Aug	50.6	86.2	75.2	40.8	53.1	50.6	47.8	46.5	45.3	43.5
6	5	6-Aug	45.3	80.8	61	39.1	48.4	47.1	45.1	44.3	43.4	41.8
6	6	6-Aug	46.5	82.1	60.2	37.6	50.2	48.8	46.2	44.6	43.4	41
6	7	6-Aug	42.7	78.2	63.3	36.2	45.8	43.6	40.7	39.7	38.9	37.8
6	8	6-Aug	54	89.6	72.5	37.6	56.7	52.2	47.4	45.8	44.4	41.6
6	9	6-Aug	48.9	84.4	61.8	41.5	52.9	51.7	49	47.6	46.4	44.1
6	10	6-Aug	51.8	87.4	75.1	42	51.4	49.8	47.7	46.8	46	44.1
6	11	6-Aug	47.5	83.1	64.2	41.2	50.5	48.7	46.2	45.2	44.4	43.2
6	12	6-Aug	49.6	85.2	69.4	41.3	56.1	49.7	46.4	45.5	44.7	43.3
6	13	7-Aug	53.3	88.8	69.8	41.8	56.6	49.2	45.4	44.6	44	43.2
6	14	7-Aug	52.4	88	82	41.5	56.4	53.2	45.2	44.5	43.9	43.2
6	15	7-Aug	44.8	80.3	54.8	41.6	47.2	46.4	44.8	44.3	43.8	43.2
6	16	7-Aug	48.7	84.2	65	42.4	53.3	51.5	47.6	45.9	44.8	43.4
6	17	7-Aug	60.6	96.2	87.8	42.2	54.7	52.9	49.9	48.6	47.2	45.2
6	18	7-Aug	52.3	87.9	65.9	44.6	56.7	54.7	51.7	50.5	49.5	47.5
6	19	7-Aug	55	90.6	71.7	45.8	58.3	55.7	53.5	52.6	51.7	50.1
6	20	7-Aug	50.7	86.2	71.5	40.2	54.1	52.6	49.5	48	46.4	44.1
6	21	7-Aug	51.8	87.4	76.6	40.5	55.6	50.8	45.5	44.5	43.7	42.3
6	22	7-Aug	53.1	88.7	78.5	39.8	51.6	49.4	46.4	45	43.8	42.2
6	23	7-Aug	51.1	86.6	76.2	40.5	52.5	50.8	48	47	45.9	43.9
6	24	7-Aug	61.4	97	93.1	41.6	59.7	54.4	49.1	47.8	46.5	44.7

Site	Hour	Date	Leq	SEL	Lmax	Lmin	L5	L10	L33	L50	L67	L90
7	1	7-Aug	48.2	83.7	71.6	32.6	51.5	48.2	43.1	41.5	39.8	37.1
7	2	7-Aug	47.1	82.7	67.1	34.7	51.7	48.4	44.2	42.6	41.1	38.8
7	3	7-Aug	41.3	76.9	59.2	31.9	44.5	43.2	40.8	39.7	38.6	36.6
7	4	7-Aug	52	87.6	76.2	32.5	58	53.7	45.4	42.5	40.3	37.3
7	5	7-Aug	43.7	79.3	63.7	32.3	47.7	45.5	41.4	40	38.5	36.1
7	6	7-Aug	51.8	87.4	69.8	35	59.4	52.4	47.6	46	44.3	41.2
7	7	7-Aug	51.8	87.3	72	38.6	55.4	51.8	48	46.8	45.5	43
7	8	7-Aug	47.1	82.7	66.9	36.3	50.5	49	46.5	45	43.6	41.1
7	9	7-Aug	51.7	87.3	68.8	35.4	52.4	49.7	45.9	44.3	42.6	40.1
7	10	7-Aug	51.9	87.5	73.5	35	55.9	50.2	45.5	43.6	41.7	38.5
7	11	8-Aug	41.3	76.9	52	34.8	44.8	43.7	41.5	40.4	39.5	38.1
7	12	8-Aug	51	86.6	72.6	34.5	54.5	46.4	40.3	39.2	37.9	36.2
7	13	8-Aug	50.3	85.9	67.2	36.2	50	46.9	43.2	42	40.9	38.5
7	14	8-Aug	43.9	79.4	53.7	33	49.2	47.7	43.5	41.5	39.7	37.8
7	15	8-Aug	47.1	82.7	61.6	38.2	50.9	49.7	47	45.7	44.5	42.4
7	16	8-Aug	59.2	94.7	83.9	42.7	56	54.1	51.6	50.6	49.4	47.2
7	17	8-Aug	55.7	91.3	82.3	43.2	56.6	55.1	53.1	52.2	51.2	48.9
7	18	8-Aug	55.9	91.5	81.5	39.5	56.5	55	51.3	49.6	47.5	42.4
7	19	8-Aug	46.8	82.3	67.2	36.8	49.6	46	42.7	41.7	40.8	39.6
7	20	8-Aug	44.3	79.9	61.1	35.4	47.5	45.2	42.6	41.6	40.7	38.9
7	21	8-Aug	47.2	82.7	69.4	34.3	52.6	47.9	43.1	41.8	40.4	38.1
7	22	8-Aug	53.1	88.7	76.8	34.2	55.4	50.9	44.6	42.8	41.3	39.1
7	23	8-Aug	47.9	83.5	70.1	35.2	51.4	49.1	44.7	43.2	42	39.4
7	24	8-Aug	49.9	85.4	68.3	33.9	56.3	53.4	46.4	44.4	42.8	39.9

### **F3. Operational Noise Modeling Results**

#### **1. Projected Operational Noise Levels with No Mitigation**

Existing Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equipment), Summary

<b>Receptor</b>	<b>Ldn</b>
1	88.22
2	54.35
3	62.82
4	60.53
5	61.93
6	72.70
7	60.05
8	88.22
9	62.41
10	59.11
11	55.69
12	55.33
13	51.25
14	50.10
15	49.88
16	49.15
17	48.99
18	47.10

Existing Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

<b>Receptor</b>	<b>MaxLeqDaytime</b>	<b>MaxLeqNighttime</b>	<b>MinLeqNighttime</b>
1	84.62	84.62	40.00
2	50.40	50.40	40.00
3	59.17	59.17	40.00
4	56.85	56.85	40.00
5	58.27	58.27	40.00
6	69.09	69.09	40.00
7	56.35	56.35	40.00
8	84.62	84.62	40.00
9	58.76	58.76	40.00
10	55.39	55.39	40.00
11	51.84	51.84	40.00
12	51.45	51.45	40.00
13	46.90	46.90	40.00
14	45.50	45.50	40.00
15	45.23	45.23	40.00
16	44.28	44.28	40.00
17	44.07	44.07	40.00
18	41.23	41.23	40.00

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

<b>Receptor 1</b>			
Hours	Daytime	Nighttime	Hours
1		40.00	1.2
2		40.00	2.3
3		40.00	3.4
4		40.00	4.5
5		84.62	5.6
6		84.62	6.7
7	84.62		7.8
8	84.62		8.9
9	84.62		9.10
10	84.62		10.11
11	84.62		11.12
12	84.62		12.1
13	84.62		1.2
14	84.62		2.3
15	84.62		3.4
16	84.62		4.5
17	84.62		5.6
18	84.62		6.7
19	84.62		7.8
20	84.62		8.9
21	84.62		9.10
22		84.62	10.11
23		84.62	11.12
24		40.00	12.1
No Penalty Added:		96.38	90.64
Penalty Added:		96.38	100.64
Average Equivalent Total (With Penalty):		102.02	
<b>Ldn:</b>		<b>88.22</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 2</b>			
Hours	Daytime	Nighttime	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		50.40	
6		50.40	
7	50.40		
8	50.40		
9	50.40		
10	50.40		
11	50.40		
12	50.40		
13	50.40		
14	50.40		
15	50.40		
16	50.40		
17	50.40		
18	50.40		
19	50.40		

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

20	50.40		
21	50.40		
22		50.40	
23		50.40	
24		40.00	
No Penalty Added:	62.16	56.89	
Penalty Added:	62.16	66.89	
Average Equivalent Total (With Penalty):		68.15	
<b>Ldn:</b>	<b>54.35</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 3</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		59.17
	6		59.17
	7	59.17	
	8	59.17	
	9	59.17	
	10	59.17	
	11	59.17	
	12	59.17	
	13	59.17	
	14	59.17	
	15	59.17	
	16	59.17	
	17	59.17	
	18	59.17	
	19	59.17	
	20	59.17	
	21	59.17	
	22		59.17
	23		59.17
	24		40.00
No Penalty Added:	70.93	65.26	
Penalty Added:	70.93	75.26	
Average Equivalent Total (With Penalty):		76.62	
<b>Ldn:</b>	<b>62.82</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 4</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		56.85
	6		56.85
	7	56.85	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

8	56.85		
9	56.85		
10	56.85		
11	56.85		
12	56.85		
13	56.85		
14	56.85		
15	56.85		
16	56.85		
17	56.85		
18	56.85		
19	56.85		
20	56.85		
21	56.85		
22		56.85	
23		56.85	
24		40.00	
No Penalty Added:	68.61	62.98	
Penalty Added:	68.61	72.98	
Average Equivalent Total (With Penalty):		74.33	
<b>Ldn:</b>	<b>60.53</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq <sub>s</sub> ]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 5</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		58.27
	6		58.27
	7	58.27	
	8	58.27	
	9	58.27	
	10	58.27	
	11	58.27	
	12	58.27	
	13	58.27	
	14	58.27	
	15	58.27	
	16	58.27	
	17	58.27	
	18	58.27	
	19	58.27	
	20	58.27	
	21	58.27	
	22		58.27
	23		58.27
	24		40.00
No Penalty Added:	70.03	64.37	
Penalty Added:	70.03	74.37	
Average Equivalent Total (With Penalty):		75.73	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

<b>Ldn:</b>	<b>61.93</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 6</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		69.09
	6		69.09
	7	69.09	
	8	69.09	
	9	69.09	
	10	69.09	
	11	69.09	
	12	69.09	
	13	69.09	
	14	69.09	
	15	69.09	
	16	69.09	
	17	69.09	
	18	69.09	
	19	69.09	
	20	69.09	
	21	69.09	
	22		69.09
	23		69.09
	24		40.00
	No Penalty Added:	80.85	75.12
	Penalty Added:	80.85	85.12
	Average Equivalent Total (With Penalty):		86.50
<b>Ldn:</b>	<b>72.70</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 7</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		56.35
	6		56.35
	7	56.35	
	8	56.35	
	9	56.35	
	10	56.35	
	11	56.35	
	12	56.35	
	13	56.35	
	14	56.35	
	15	56.35	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

16	56.35		
17	56.35		
18	56.35		
19	56.35		
20	56.35		
21	56.35		
22		56.35	
23		56.35	
24		40.00	
No Penalty Added:	68.12	62.50	
Penalty Added:	68.12	72.50	
Average Equivalent Total (With Penalty):		73.85	
<b>Ldn:</b>	<b>60.05</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 8</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		84.62
	6		84.62
	7	84.62	
	8	84.62	
	9	84.62	
	10	84.62	
	11	84.62	
	12	84.62	
	13	84.62	
	14	84.62	
	15	84.62	
	16	84.62	
	17	84.62	
	18	84.62	
	19	84.62	
	20	84.62	
	21	84.62	
	22		84.62
	23		84.62
	24		40.00
No Penalty Added:	96.38	90.64	
Penalty Added:	96.38	100.64	
Average Equivalent Total (With Penalty):		102.02	
<b>Ldn:</b>	<b>88.22</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 9</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

3		40.00	
4		40.00	
5		58.76	
6		58.76	
7	58.76		
8	58.76		
9	58.76		
10	58.76		
11	58.76		
12	58.76		
13	58.76		
14	58.76		
15	58.76		
16	58.76		
17	58.76		
18	58.76		
19	58.76		
20	58.76		
21	58.76		
22		58.76	
23		58.76	
24		40.00	
No Penalty Added:		70.52	64.85
Penalty Added:		70.52	74.85
Average Equivalent Total (With Penalty):		76.21	
<b>Ldn:</b>		<b>62.41</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 10</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		55.39
	6		55.39
	7	55.39	
	8	55.39	
	9	55.39	
	10	55.39	
	11	55.39	
	12	55.39	
	13	55.39	
	14	55.39	
	15	55.39	
	16	55.39	
	17	55.39	
	18	55.39	
	19	55.39	
	20	55.39	
	21	55.39	
	22		55.39

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

23		55.39	
24		40.00	
No Penalty Added:	67.15	61.57	
Penalty Added:	67.15	71.57	
Average Equivalent Total (With Penalty):		72.91	
<b>Ldn:</b>	<b>59.11</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 11</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		51.84
	6		51.84
	7	51.84	
	8	51.84	
	9	51.84	
	10	51.84	
	11	51.84	
	12	51.84	
	13	51.84	
	14	51.84	
	15	51.84	
	16	51.84	
	17	51.84	
	18	51.84	
	19	51.84	
	20	51.84	
	21	51.84	
	22		51.84
	23		51.84
	24		40.00
No Penalty Added:	63.60	58.20	
Penalty Added:	63.60	68.20	
Average Equivalent Total (With Penalty):		69.49	
<b>Ldn:</b>	<b>55.69</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 12</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		51.45
	6		51.45
	7	51.45	
	8	51.45	
	9	51.45	
	10	51.45	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

11	51.45		
12	51.45		
13	51.45		
14	51.45		
15	51.45		
16	51.45		
17	51.45		
18	51.45		
19	51.45		
20	51.45		
21	51.45		
22		51.45	
23		51.45	
24		40.00	
No Penalty Added:	63.21	57.84	
Penalty Added:	63.21	67.84	
Average Equivalent Total (With Penalty):		69.13	
<b>Ldn:</b>	<b>55.33</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 13</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		46.90
	6		46.90
	7	46.90	
	8	46.90	
	9	46.90	
	10	46.90	
	11	46.90	
	12	46.90	
	13	46.90	
	14	46.90	
	15	46.90	
	16	46.90	
	17	46.90	
	18	46.90	
	19	46.90	
	20	46.90	
	21	46.90	
	22		46.90
	23		46.90
	24		40.00
No Penalty Added:	58.67	53.91	
Penalty Added:	58.67	63.91	
Average Equivalent Total (With Penalty):		65.05	
<b>Ldn:</b>	<b>51.25</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

<b>Receptor 14</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		45.50
6		45.50
7	45.50	
8	45.50	
9	45.50	
10	45.50	
11	45.50	
12	45.50	
13	45.50	
14	45.50	
15	45.50	
16	45.50	
17	45.50	
18	45.50	
19	45.50	
20	45.50	
21	45.50	
22		45.50
23		45.50
24		40.00
No Penalty Added:		57.26 52.83
Penalty Added:		57.26 62.83
Average Equivalent Total (With Penalty):		63.90
<b>Ldn:</b>		<b>50.10</b>
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		
<b>Receptor 15</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		45.23
6		45.23
7	45.23	
8	45.23	
9	45.23	
10	45.23	
11	45.23	
12	45.23	
13	45.23	
14	45.23	
15	45.23	
16	45.23	
17	45.23	
18	45.23	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

19	45.23		
20	45.23		
21	45.23		
22		45.23	
23		45.23	
24		40.00	
No Penalty Added:	56.99	52.64	
Penalty Added:	56.99	62.64	
Average Equivalent Total (With Penalty):		63.68	
<b>Ldn:</b>	<b>49.88</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 16</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		44.28
	6		44.28
	7	44.28	
	8	44.28	
	9	44.28	
	10	44.28	
	11	44.28	
	12	44.28	
	13	44.28	
	14	44.28	
	15	44.28	
	16	44.28	
	17	44.28	
	18	44.28	
	19	44.28	
	20	44.28	
	21	44.28	
	22		44.28
	23		44.28
	24		40.00
No Penalty Added:	56.04	51.96	
Penalty Added:	56.04	61.96	
Average Equivalent Total (With Penalty):		62.95	
<b>Ldn:</b>	<b>49.15</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 17</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		44.07
	6		44.07

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

7	44.07		
8	44.07		
9	44.07		
10	44.07		
11	44.07		
12	44.07		
13	44.07		
14	44.07		
15	44.07		
16	44.07		
17	44.07		
18	44.07		
19	44.07		
20	44.07		
21	44.07		
22		44.07	
23		44.07	
24		40.00	
No Penalty Added:	55.83	51.82	
Penalty Added:	55.83	61.82	
Average Equivalent Total (With Penalty):		62.79	
<b>Ldn:</b>	<b>48.99</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq's]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 18</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		41.23
	6		41.23
	7	41.23	
	8	41.23	
	9	41.23	
	10	41.23	
	11	41.23	
	12	41.23	
	13	41.23	
	14	41.23	
	15	41.23	
	16	41.23	
	17	41.23	
	18	41.23	
	19	41.23	
	20	41.23	
	21	41.23	
	22		41.23
	23		41.23
	24		40.00
No Penalty Added:	52.99	50.13	
Penalty Added:	52.99	60.13	

Existing Onsite Operational Noise Levels (Assumes Control Devices on Onsite Mobile Equip)

Average Equivalent Total (With Penalty):	60.90	
<b>Ldn:</b>	<b>47.10</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Mining Equipment	50	84.62		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		84.62	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Mining Equipment	2900	49.35		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		50.40	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Mining Equipment	1550	54.79		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		59.17	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Mining Equipment	1600	54.52		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total</b>		56.85	dB	
<b>Receptor 5</b>				

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1660	54.38		
Mining Equipment	1350	55.99		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		58.27	dB	
<b><u>Receptor 6</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3610	47.64		
Mining Equipment	300	69.06		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		69.09	dB	
<b><u>Receptor 7</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4680	45.38		
Mining Equipment	1350	55.99		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		56.35	dB	
<b><u>Receptor 8</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Mining Equipment	50	84.62		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		84.62	dB	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		

Existing Operational	5280	44.33	
Mining Equipment	1000	58.60	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		58.76 dB	
<b>Receptor 10</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	2280	51.63	
Mining Equipment	1900	53.02	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		55.39 dB	
<b>Receptor 11</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3370	48.23	
Mining Equipment	2900	49.35	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		51.84 dB	
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Mining Equipment	3100	48.77	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		51.45 dB	
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	

Mining Equipment	4600	45.34	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		46.90	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Mining Equipment	5400	43.95	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		45.50	dB
<b>Receptor 15</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8960	39.74	
Mining Equipment	5500	43.79	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		45.23	dB
<b>Receptor 16</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	9570	39.17	
Mining Equipment	6250	42.68	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		44.28	dB
<b>Receptor 17</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	9830	38.94	
Mining Equipment	6400	42.48	

		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		44.07	dB
<b>Receptor 18</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	12000	37.20	
Mining Equipment	9500	39.04	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		41.23	dB

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Mining Equipment	50	84.62		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		84.62	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Mining Equipment	2900	49.35		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		50.40	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Mining Equipment	1550	54.79		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		59.17	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Mining Equipment	1600	54.52		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total</b>		56.85	dB	
<b>Receptor 5</b>				

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1660	54.38		
Mining Equipment	1350	55.99		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		58.27	dB	
<b>Receptor 6</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3610	47.64		
Mining Equipment	300	69.06		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		69.09	dB	
<b>Receptor 7</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4680	45.38		
Mining Equipment	1350	55.99		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		56.35	dB	
<b>Receptor 8</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Mining Equipment	50	84.62		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		84.62	dB	
<b>Receptor 9</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		

Existing Operational	5280	44.33		
Mining Equipment	1000	58.60		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		<b>58.76</b>	<b>dB</b>	
<b>Receptor 10</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Mining Equipment	1900	53.02		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		<b>55.39</b>	<b>dB</b>	
<b>Receptor 11</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Mining Equipment	2900	49.35		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		<b>51.84</b>	<b>dB</b>	
<b>Receptor 12</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3430	48.08		
Mining Equipment	3100	48.77		
		0		
		0		
		0		
		0		
		0		
		0		
<b>TOTAL</b>		<b>51.45</b>	<b>dB</b>	
<b>Receptor 13</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	7150	41.70		

Mining Equipment	4600	45.34	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		46.90	dB
<b><u>Receptor 14</u></b>			
<b><u>Source</u></b>	<b><u>Distance</u></b>	<b><u>Noise Level</u></b>	
Existing Operational	8420	40.28	
Mining Equipment	5400	43.95	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		45.50	dB
<b><u>Receptor 15</u></b>			
<b><u>Source</u></b>	<b><u>Distance</u></b>	<b><u>Noise Level</u></b>	
Existing Operational	8960	39.74	
Mining Equipment	5500	43.79	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		45.23	dB
<b><u>Receptor 16</u></b>			
<b><u>Source</u></b>	<b><u>Distance</u></b>	<b><u>Noise Level</u></b>	
Existing Operational	9570	39.17	
Mining Equipment	6250	42.68	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		44.28	dB
<b><u>Receptor 17</u></b>			
<b><u>Source</u></b>	<b><u>Distance</u></b>	<b><u>Noise Level</u></b>	
Existing Operational	9830	38.94	
Mining Equipment	6400	42.48	

		0	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		<b>44.07</b>	<b>dB</b>
<b>Receptor 18</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	12000	37.20	
Mining Equipment	9500	39.04	
		0	
		0	
		0	
		0	
		0	
		0	
<b>TOTAL</b>		<b>41.23</b>	<b>dB</b>

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>70.00</b>	<b>dB</b>		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
19	3130	48.88		1	
24	3610	47.64		6	
25	4680	45.38		7	
26	4210	46.30		8	
27	5280	44.33		9	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	275	70.00	Reference		
21	1200	57.20		3	
23	1660	54.38		5	
28	2280	51.63		10	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>70.00</b>	<b>dB</b>		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
22	1940	53.03		4	
29	3370	48.23		11	
30	3430	48.08		12	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>70.00</b>	<b>dB</b>		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
20	5670	43.71		2	
31	7150	41.70		13	
32	8420	40.28		14	
33	8960	39.74		15	
34	9570	39.17		16	
35	9830	38.94		17	
36	12000	37.20		18	

	A	B	C	D	E
1	<b>Proposed Mining/Reclamation Equipment Noise Level</b>				
2					
3	Source				
4	Dozer	75			
5	Dozer	75			
6	Scraper	80			
7	Loader	75			
8	Haul Truck	75			
9	Haul Truck	75			
10	Haul Truck	75			
11		0			
12		0			
13	TOTAL:	84.62	dB		
14					
15					
16	<b>Distance to Patterson Mining Site</b>				
17	(feet)	(dB)			
18	50	84.62	Reference		
19	50	84.62		1 current phase	
20	2900	49.35		2 current phase	
21	1550	54.79		3 current phase	
22	1600	54.52		4 current phase	
23	1350	55.99		5 current phase	
24	300	69.06		6 current phase	
25	1350	55.99		7 current phase	
26	50	84.62		8 current phase	
27	1000	58.60		9 current phase	
28	1900	53.02		10 current phase	
29	2900	49.35		11 current phase	
30	3100	48.77		12 current phase	
31	4600	45.34		13 current phase	
32	5400	43.95		14 current phase	
33	5500	43.79		15 current phase	
34	6250	42.68		16 current phase	
35	6400	42.48		17 current phase	
36	9500	39.04		18 current phase	



Projected Operational Noise Levels with No Mitigation, Summary

<b>Receptor</b>	<b>Ldn</b>
1	64.04
2	63.87
3	75.65
4	84.20
5	79.36
6	62.46
7	61.05
8	61.91
9	62.90
10	71.25
11	69.92
12	69.24
13	61.10
14	60.95
15	62.20
16	60.86
17	61.27
18	60.23

<b>Receptor</b>	<b>MaxLeqDaytime</b>	<b>MaxLeqNighttime</b>	<b>MinLeqNighttime</b>
1	60.40	60.40	40.00
2	60.23	60.23	40.00
3	72.05	72.05	40.00
4	80.59	80.59	40.00
5	75.76	75.76	40.00
6	58.80	58.80	40.00
7	57.37	57.37	40.00
8	58.25	58.25	40.00
9	59.25	59.25	40.00
10	67.64	67.64	40.00
11	66.31	66.31	40.00
12	65.62	65.62	40.00
13	57.42	57.42	40.00
14	57.27	57.27	40.00
15	58.54	58.54	40.00
16	57.18	57.18	40.00
17	57.60	57.60	40.00
18	56.54	56.54	40.00

Predicted Onsite Operational Noise Levels with No Mitigation

<b>Receptor 1</b>			
Hours	Daytime	Nighttime	Hours
1		40.00	1.2
2		40.00	2.3
3		40.00	3.4
4		40.00	4.5
5		60.40	5.6
6		60.40	6.7
7	60.40		7.8
8	60.40		8.9
9	60.40		9.10
10	60.40		10.11
11	60.40		11.12
12	60.40		12.1
13	60.40		1.2
14	60.40		2.3
15	60.40		3.4
16	60.40		4.5
17	60.40		5.6
18	60.40		6.7
19	60.40		7.8
20	60.40		8.9
21	60.40		9.10
22		60.40	10.11
23		60.40	11.12
24		40.00	12.1
No Penalty Added:		72.16	66.47
Penalty Added:		72.16	76.47
Average Equivalent Total (With Penalty):		77.84	
<b>Ldn:</b>		<b>64.04</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 2</b>			
Hours	Daytime	Nighttime	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		60.23	
6		60.23	
7	60.23		
8	60.23		
9	60.23		
10	60.23		
11	60.23		
12	60.23		
13	60.23		
14	60.23		
15	60.23		
16	60.23		
17	60.23		
18	60.23		
19	60.23		

Predicted Onsite Operational Noise Levels with No Mitigation

20	60.23		
21	60.23		
22		60.23	
23		60.23	
24		40.00	
No Penalty Added:	71.99	66.30	
Penalty Added:	71.99	76.30	
Average Equivalent Total (With Penalty):		77.67	
<b>Ldn:</b>	<b>63.87</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 3</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		72.05
	6		72.05
	7	72.05	
	8	72.05	
	9	72.05	
	10	72.05	
	11	72.05	
	12	72.05	
	13	72.05	
	14	72.05	
	15	72.05	
	16	72.05	
	17	72.05	
	18	72.05	
	19	72.05	
	20	72.05	
	21	72.05	
	22		72.05
	23		72.05
	24		40.00
No Penalty Added:	83.81	78.07	
Penalty Added:	83.81	88.07	
Average Equivalent Total (With Penalty):		89.45	
<b>Ldn:</b>	<b>75.65</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 4</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		80.59
	6		80.59
	7	80.59	

Predicted Onsite Operational Noise Levels with No Mitgation

8	80.59		
9	80.59		
10	80.59		
11	80.59		
12	80.59		
13	80.59		
14	80.59		
15	80.59		
16	80.59		
17	80.59		
18	80.59		
19	80.59		
20	80.59		
21	80.59		
22		80.59	
23		80.59	
24		40.00	
No Penalty Added:	92.35	86.62	
Penalty Added:	92.35	96.62	
Average Equivalent Total (With Penalty):		98.00	
<b>Ldn:</b>	<b>84.20</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occuring during nighttime hours (shaded in grey)			
<b>Receptor 5</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		75.76
	6		75.76
	7	75.76	
	8	75.76	
	9	75.76	
	10	75.76	
	11	75.76	
	12	75.76	
	13	75.76	
	14	75.76	
	15	75.76	
	16	75.76	
	17	75.76	
	18	75.76	
	19	75.76	
	20	75.76	
	21	75.76	
	22		75.76
	23		75.76
	24		40.00
No Penalty Added:	87.52	81.78	
Penalty Added:	87.52	91.78	
Average Equivalent Total (With Penalty):		93.16	

Predicted Onsite Operational Noise Levels with No Mitigation

<b>Ldn:</b>	<b>79.36</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 6</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		58.80
	6		58.80
	7	58.80	
	8	58.80	
	9	58.80	
	10	58.80	
	11	58.80	
	12	58.80	
	13	58.80	
	14	58.80	
	15	58.80	
	16	58.80	
	17	58.80	
	18	58.80	
	19	58.80	
	20	58.80	
	21	58.80	
	22		58.80
	23		58.80
	24		40.00
No Penalty Added:		70.57	64.90
Penalty Added:		70.57	74.90
Average Equivalent Total (With Penalty):			76.26
<b>Ldn:</b>	<b>62.46</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 7</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		57.37
	6		57.37
	7	57.37	
	8	57.37	
	9	57.37	
	10	57.37	
	11	57.37	
	12	57.37	
	13	57.37	
	14	57.37	
	15	57.37	

Predicted Onsite Operational Noise Levels with No Mitigation

16	57.37		
17	57.37		
18	57.37		
19	57.37		
20	57.37		
21	57.37		
22		57.37	
23		57.37	
24		40.00	
No Penalty Added:	69.13	63.49	
Penalty Added:	69.13	73.49	
Average Equivalent Total (With Penalty):		74.85	
<b>Ldn:</b>	<b>61.05</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 8</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		58.25
	6		58.25
	7	58.25	
	8	58.25	
	9	58.25	
	10	58.25	
	11	58.25	
	12	58.25	
	13	58.25	
	14	58.25	
	15	58.25	
	16	58.25	
	17	58.25	
	18	58.25	
	19	58.25	
	20	58.25	
	21	58.25	
	22		58.25
	23		58.25
	24		40.00
No Penalty Added:	70.01	64.35	
Penalty Added:	70.01	74.35	
Average Equivalent Total (With Penalty):		75.71	
<b>Ldn:</b>	<b>61.91</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 9</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00

Predicted Onsite Operational Noise Levels with No Mitgation

3		40.00	
4		40.00	
5		59.25	
6		59.25	
7	59.25		
8	59.25		
9	59.25		
10	59.25		
11	59.25		
12	59.25		
13	59.25		
14	59.25		
15	59.25		
16	59.25		
17	59.25		
18	59.25		
19	59.25		
20	59.25		
21	59.25		
22		59.25	
23		59.25	
24		40.00	
No Penalty Added:		71.01	65.33
Penalty Added:		71.01	75.33
Average Equivalent Total (With Penalty):		76.70	
<b>Ldn:</b>		<b>62.90</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 10</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		67.64
	6		67.64
	7	67.64	
	8	67.64	
	9	67.64	
	10	67.64	
	11	67.64	
	12	67.64	
	13	67.64	
	14	67.64	
	15	67.64	
	16	67.64	
	17	67.64	
	18	67.64	
	19	67.64	
	20	67.64	
	21	67.64	
	22		67.64

Predicted Onsite Operational Noise Levels with No Mitigation

23		67.64	
24		40.00	
No Penalty Added:	79.40	73.67	
Penalty Added:	79.40	83.67	
Average Equivalent Total (With Penalty):		85.05	
<b>Ldn:</b>	<b>71.25</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 11</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		66.31
	6		66.31
	7	66.31	
	8	66.31	
	9	66.31	
	10	66.31	
	11	66.31	
	12	66.31	
	13	66.31	
	14	66.31	
	15	66.31	
	16	66.31	
	17	66.31	
	18	66.31	
	19	66.31	
	20	66.31	
	21	66.31	
	22		66.31
	23		66.31
	24		40.00
No Penalty Added:	78.07	72.34	
Penalty Added:	78.07	82.34	
Average Equivalent Total (With Penalty):		83.72	
<b>Ldn:</b>	<b>69.92</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 12</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		65.62
	6		65.62
	7	65.62	
	8	65.62	
	9	65.62	
	10	65.62	

Predicted Onsite Operational Noise Levels with No Mitigation

11	65.62		
12	65.62		
13	65.62		
14	65.62		
15	65.62		
16	65.62		
17	65.62		
18	65.62		
19	65.62		
20	65.62		
21	65.62		
22		65.62	
23		65.62	
24		40.00	
No Penalty Added:	77.39	71.66	
Penalty Added:	77.39	81.66	
Average Equivalent Total (With Penalty):		83.04	
<b>Ldn:</b>	<b>69.24</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq <sub>s</sub> ]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 13</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1			40.00
2			40.00
3			40.00
4			40.00
5			57.42
6			57.42
7	57.42		
8	57.42		
9	57.42		
10	57.42		
11	57.42		
12	57.42		
13	57.42		
14	57.42		
15	57.42		
16	57.42		
17	57.42		
18	57.42		
19	57.42		
20	57.42		
21	57.42		
22			57.42
23			57.42
24			40.00
No Penalty Added:	69.18	63.54	
Penalty Added:	69.18	73.54	
Average Equivalent Total (With Penalty):		74.90	
<b>Ldn:</b>	<b>61.10</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq <sub>s</sub> ]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			

Predicted Onsite Operational Noise Levels with No Mitigation

<b>Receptor 14</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		57.27
6		57.27
7	57.27	
8	57.27	
9	57.27	
10	57.27	
11	57.27	
12	57.27	
13	57.27	
14	57.27	
15	57.27	
16	57.27	
17	57.27	
18	57.27	
19	57.27	
20	57.27	
21	57.27	
22		57.27
23		57.27
24		40.00
No Penalty Added:		69.04
Penalty Added:		69.04
Average Equivalent Total (With Penalty):		74.75
<b>Ldn:</b>		<b>60.95</b>
Ldn= $10\text{Log}_{10}(\text{Energy Sum of 24 hourly Leqs})-13.8$		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		
<b>Receptor 15</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		58.54
6		58.54
7	58.54	
8	58.54	
9	58.54	
10	58.54	
11	58.54	
12	58.54	
13	58.54	
14	58.54	
15	58.54	
16	58.54	
17	58.54	
18	58.54	

Predicted Onsite Operational Noise Levels with No Mitigation

19	58.54		
20	58.54		
21	58.54		
22		58.54	
23		58.54	
24		40.00	
No Penalty Added:	70.30	64.64	
Penalty Added:	70.30	74.64	
Average Equivalent Total (With Penalty):		76.00	
<b>Ldn:</b>	<b>62.20</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 16</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		57.18
	6		57.18
	7	57.18	
	8	57.18	
	9	57.18	
	10	57.18	
	11	57.18	
	12	57.18	
	13	57.18	
	14	57.18	
	15	57.18	
	16	57.18	
	17	57.18	
	18	57.18	
	19	57.18	
	20	57.18	
	21	57.18	
	22		57.18
	23		57.18
	24		40.00
No Penalty Added:	68.94	63.30	
Penalty Added:	68.94	73.30	
Average Equivalent Total (With Penalty):		74.66	
<b>Ldn:</b>	<b>60.86</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 17</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		57.60
	6		57.60

Predicted Onsite Operational Noise Levels with No Mitigation

7	57.60		
8	57.60		
9	57.60		
10	57.60		
11	57.60		
12	57.60		
13	57.60		
14	57.60		
15	57.60		
16	57.60		
17	57.60		
18	57.60		
19	57.60		
20	57.60		
21	57.60		
22		57.60	
23		57.60	
24		40.00	
No Penalty Added:	69.36	63.71	
Penalty Added:	69.36	73.71	
Average Equivalent Total (With Penalty):		75.07	
<b>Ldn:</b>	<b>61.27</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 18</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		56.54
	6		56.54
	7	56.54	
	8	56.54	
	9	56.54	
	10	56.54	
	11	56.54	
	12	56.54	
	13	56.54	
	14	56.54	
	15	56.54	
	16	56.54	
	17	56.54	
	18	56.54	
	19	56.54	
	20	56.54	
	21	56.54	
	22		56.54
	23		56.54
	24		40.00
No Penalty Added:	68.31	62.68	
Penalty Added:	68.31	72.68	

Predicted Onsite Operational Noise Levels with No Mitigation

Average Equivalent Total (With Penalty):	74.03	
<b>Ldn:</b>	<b>60.23</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Proposed Asphalt Batch Plant	4350	37.21		
Proposed Mining Equipment	3400	60.06		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		49.16		
TOTAL (above + Proposed Mining Equipment)		60.40	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Proposed Asphalt Batch Plant	4930	36.12		
Proposed Mining Equipment	3380	60.11		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.41		
TOTAL (above + Proposed Mining Equipment)		60.23	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Proposed Asphalt Batch Plant	2370	42.48		
Proposed Mining Equipment	870	71.90		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		57.35		
TOTAL (above + Proposed Mining Equipment)		72.05	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Proposed Asphalt Batch Plant	2160	43.29		
Proposed Mining Equipment	320	80.59		
		0		
		0		

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		80.59	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	560	75.72	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		75.76	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4100	58.43	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		58.80	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	4800	57.06	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		57.37	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	57.94		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>46.64</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>58.25</b>	<b>dB</b>	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	59.09		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>44.73</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>59.25</b>	<b>dB</b>	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	1440	67.52		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>51.91</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>67.64</b>	<b>dB</b>	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	1670	66.23		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		66.31	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	1810	65.53	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		65.62	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	57.28	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		57.42	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	57.17	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		57.27	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	8960	39.74		
Proposed Asphalt Batch Plant	8240	31.66		
Proposed Mining Equipment	4080	58.48		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>40.37</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>58.54</b>	<b>dB</b>	
<b><u>Receptor 16</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9570	39.17		
Proposed Asphalt Batch Plant	8780	31.11		
Proposed Mining Equipment	4780	57.10		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>39.80</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>57.18</b>	<b>dB</b>	
<b><u>Receptor 17</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9830	38.94		
Proposed Asphalt Batch Plant	8990	30.90		
Proposed Mining Equipment	4550	57.53		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>39.57</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>57.60</b>	<b>dB</b>	
<b><u>Receptor 18</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	12000	37.20		
Proposed Asphalt Batch Plant	11600	28.69		
Proposed Mining Equipment	5130	56.49		
		0		
		0		
		0		
		0		

		0	
		0	
Total (Existing Operational + Proposed ABP)		37.78	
TOTAL (above + Proposed Mining Equipment)		56.54	dB

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Proposed Asphalt Batch Plant	4350	37.21		
Proposed Mining Equipment	3400	60.06		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		49.16		
TOTAL (above + Proposed Mining Equipment)		60.40	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Proposed Asphalt Batch Plant	4930	36.12		
Proposed Mining Equipment	3380	60.11		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.41		
TOTAL (above + Proposed Mining Equipment)		60.23	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Proposed Asphalt Batch Plant	2370	42.48		
Proposed Mining Equipment	870	71.90		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		57.35		
TOTAL (above + Proposed Mining Equipment)		72.05	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Proposed Asphalt Batch Plant	2160	43.29		
Proposed Mining Equipment	320	80.59		
		0		
		0		

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		80.59	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	560	75.72	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		75.76	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4100	58.43	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		58.80	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	4800	57.06	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		57.37	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	57.94		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>46.64</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>58.25</b>	<b>dB</b>	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	59.09		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>44.73</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>59.25</b>	<b>dB</b>	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	1440	67.52		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>51.91</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>67.64</b>	<b>dB</b>	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	1670	66.23		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		66.31	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	1810	65.53	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		65.62	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	57.28	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		57.42	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	57.17	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		57.27	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	8960	39.74		
Proposed Asphalt Batch Plant	8240	31.66		
Proposed Mining Equipment	4080	58.48		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		40.37		
TOTAL (above + Proposed Mining Equipment)		58.54	dB	
<b><u>Receptor 16</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9570	39.17		
Proposed Asphalt Batch Plant	8780	31.11		
Proposed Mining Equipment	4780	57.10		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.80		
TOTAL (above + Proposed Mining Equipment)		57.18	dB	
<b><u>Receptor 17</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9830	38.94		
Proposed Asphalt Batch Plant	8990	30.90		
Proposed Mining Equipment	4550	57.53		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.57		
TOTAL (above + Proposed Mining Equipment)		57.60	dB	
<b><u>Receptor 18</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	12000	37.20		
Proposed Asphalt Batch Plant	11600	28.69		
Proposed Mining Equipment	5130	56.49		
		0		
		0		
		0		
		0		

		0	
		0	
Total (Existing Operational + Proposed ABP)		37.78	
TOTAL (above + Proposed Mining Equipment)		56.54	dB

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	70.00	dB		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
19	3130	48.88	1		
24	3610	47.64	6		
25	4680	45.38	7		
26	4210	46.30	8		
27	5280	44.33	9		

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	275	70.00	Reference		
21	1200	57.20	3		
23	1660	54.38	5		
28	2280	51.63	10		

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	70.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	275	70.00	Reference		
22	1940	53.03		4	
29	3370	48.23		11	
30	3430	48.08		12	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	70.00	dB		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
20	5670	43.71	2		
31	7150	41.70	13		
32	8420	40.28	14		
33	8960	39.74	15		
34	9570	39.17	16		
35	9830	38.94	17		
36	12000	37.20	18		

	A	B	C	D	E
1	<b>Proposed Asphalt Batch Plant Noise Level</b>				
2					
3	<u>Source</u>				
4	Proposed Asphalt Batch Plant	76			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	76.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	50	76.00	Reference		
19	4350	37.21	1		
20	4930	36.12	2		
21	2370	42.48	3		
22	2160	43.29	4		
23	2320	42.67	5		
24	4810	36.34	6		
25	5860	34.62	7		
26	5340	35.43	8		
27	6230	34.09	9		
28	3180	39.93	10		
29	3500	39.10	11		
30	3120	40.10	12		
31	6230	34.09	13		
32	7670	32.28	14		
33	8240	31.66	15		
34	8780	31.11	16		
35	8990	30.90	17		
36	11600	28.69	18		

	A	B	C	D	E
1	<b>Proposed Mining/Reclamation Equipment Noise Level</b>				
2					
3	<u>Source</u>				
4	Dozer	80			
5	Dozer	80			
6	Scraper	88			
7	Loader	79			
8	Haul Truck	91			
9	Haul Truck	91			
10	Haul Truck	91			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>96.71</b>	<b>dB</b>		
14					
15					
16	<b>Distance to Patterson Mining Site</b>				
17	(feet)	(dB)			
18	50	96.71	Reference		
19	3400	60.06	1	Phase 6	
20	3380	60.11	2	Phase 5	
21	870	71.90	3	Phase 6	
22	320	80.59	4	Phase 6	
23	560	75.72	5	Phase 6	
24	4100	58.43	6	Phase 6	
25	4800	57.06	7	Phase 6	
26	4340	57.94	8	Phase 3	
27	3800	59.09	9	Phase 3	
28	1440	67.52	10	Phase 6	
29	1670	66.23	11	Phase 6	
30	1810	65.53	12	Phase 6	
31	4680	57.28	13	Phase 5	
32	4740	57.17	14	Phase 5	
33	4080	58.48	15	Phase 5	
34	4780	57.10	16	Phase 5	
35	4550	57.53	17	Phase 5	
36	5130	56.49	18	Phase 4	

Receptor	Existing Site	expansion phase	asphalt plant		
1	3130	3400	4350	Phase 6	
2	5670	3380	4930	Phase 5	
3	1200	870	2370	Phase 6	
4	1940	320	2160	Phase 6	
5	1660	560	2320	Phase 6	
6	3610	4100	4810	Phase 6	
7	4680	4800	5860	Phase 6	
8	4210	4340	5340	Phase 3	
9	5280	3800	6230	Phase 3	
10	2280	1440	3180	Phase 6	
11	3370	1670	3500	Phase 6	
12	3430	1810	3120	Phase 6	
13	7150	4680	6230	Phase 5	
14	8420	4740	7670	Phase 5	
15	8960	4080	8240	Phase 5	
16	9570	4780	8780	Phase 5	
17	9830	4550	8990	Phase 5	
18	12000	5130	11600	Phase 4	



### **F3. Operational Noise Modeling Results**

#### **2. Projected Operational Noise Levels with Mitigation**

Projected Operational Noise Levels with Mit 1 only Summary

<b>Receptor</b>	<b>Ldn</b>
1	55.48
2	53.61
3	65.39
4	72.24
5	67.77
6	54.19
7	52.52
8	53.32
9	53.09
10	60.71
11	58.96
12	58.44
13	51.35
14	50.90
15	51.63
16	50.62
17	50.86
18	49.90

Projected Operational Noise Levels with Mit 1 Only

<b>Receptor</b>	<b>MaxLeqDaytime</b>	<b>MaxLeqNighttime</b>	<b>MinLeqNighttime</b>
1	51.62	51.62	40.00
2	49.59	49.59	40.00
3	61.76	61.76	40.00
4	68.63	68.63	40.00
5	64.15	64.15	40.00
6	50.23	50.23	40.00
7	48.38	48.38	40.00
8	49.27	49.27	40.00
9	49.02	49.02	40.00
10	57.03	57.03	40.00
11	55.24	55.24	40.00
12	54.71	54.71	40.00
13	47.03	47.03	40.00
14	46.49	46.49	40.00
15	47.36	47.36	40.00
16	46.15	46.15	40.00
17	46.44	46.44	40.00
18	45.25	45.25	40.00

Predicted Onsite Operational Noise Levels with Mit 1 only

<b>Receptor 1</b>			
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	<b>Hours</b>
1		40.00	1.2
2		40.00	2.3
3		40.00	3.4
4		40.00	4.5
5		51.62	5.6
6		51.62	6.7
7	51.62		7.8
8	51.62		8.9
9	51.62		9.10
10	51.62		10.11
11	51.62		11.12
12	51.62		12.1
13	51.62		1.2
14	51.62		2.3
15	51.62		3.4
16	51.62		4.5
17	51.62		5.6
18	51.62		6.7
19	51.62		7.8
20	51.62		8.9
21	51.62		9.10
22		51.62	10.11
23		51.62	11.12
24		40.00	12.1
No Penalty Added:		63.38	58.00
Penalty Added:		63.38	68.00
Average Equivalent Total (With Penalty):		69.28	
<b>Ldn:</b>		<b>55.48</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 2</b>			
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		49.59	
6		49.59	
7	49.59		
8	49.59		
9	49.59		
10	49.59		
11	49.59		
12	49.59		
13	49.59		
14	49.59		
15	49.59		
16	49.59		
17	49.59		
18	49.59		
19	49.59		

Predicted Onsite Operational Noise Levels with Mit 1 only

20	49.59		
21	49.59		
22		49.59	
23		49.59	
24		40.00	
No Penalty Added:	61.35	56.17	
Penalty Added:	61.35	66.17	
Average Equivalent Total (With Penalty):		67.41	
<b>Ldn:</b>	<b>53.61</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 3</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		61.76
	6		61.76
	7	61.76	
	8	61.76	
	9	61.76	
	10	61.76	
	11	61.76	
	12	61.76	
	13	61.76	
	14	61.76	
	15	61.76	
	16	61.76	
	17	61.76	
	18	61.76	
	19	61.76	
	20	61.76	
	21	61.76	
	22		61.76
	23		61.76
	24		40.00
No Penalty Added:	73.52	67.82	
Penalty Added:	73.52	77.82	
Average Equivalent Total (With Penalty):		79.19	
<b>Ldn:</b>	<b>65.39</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 4</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		68.63
	6		68.63
	7	68.63	

Predicted Onsite Operational Noise Levels with Mit 1 only

8	68.63		
9	68.63		
10	68.63		
11	68.63		
12	68.63		
13	68.63		
14	68.63		
15	68.63		
16	68.63		
17	68.63		
18	68.63		
19	68.63		
20	68.63		
21	68.63		
22		68.63	
23		68.63	
24		40.00	
No Penalty Added:	80.39	74.66	
Penalty Added:	80.39	84.66	
Average Equivalent Total (With Penalty):		86.04	
<b>Ldn:</b>	<b>72.24</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 5</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1			40.00
2			40.00
3			40.00
4			40.00
5			64.15
6			64.15
7	64.15		
8	64.15		
9	64.15		
10	64.15		
11	64.15		
12	64.15		
13	64.15		
14	64.15		
15	64.15		
16	64.15		
17	64.15		
18	64.15		
19	64.15		
20	64.15		
21	64.15		
22		64.15	
23		64.15	
24		40.00	
No Penalty Added:	75.92	70.20	
Penalty Added:	75.92	80.20	
Average Equivalent Total (With Penalty):		81.57	

Predicted Onsite Operational Noise Levels with Mit 1 only

<b>Ldn:</b>	<b>67.77</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 6</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		50.23
	6		50.23
	7	50.23	
	8	50.23	
	9	50.23	
	10	50.23	
	11	50.23	
	12	50.23	
	13	50.23	
	14	50.23	
	15	50.23	
	16	50.23	
	17	50.23	
	18	50.23	
	19	50.23	
	20	50.23	
	21	50.23	
	22		50.23
	23		50.23
	24		40.00
No Penalty Added:		61.99	56.74
Penalty Added:		61.99	66.74
Average Equivalent Total (With Penalty):			67.99
<b>Ldn:</b>	<b>54.19</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 7</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		48.38
	6		48.38
	7	48.38	
	8	48.38	
	9	48.38	
	10	48.38	
	11	48.38	
	12	48.38	
	13	48.38	
	14	48.38	
	15	48.38	

Predicted Onsite Operational Noise Levels with Mit 1 only

16	48.38		
17	48.38		
18	48.38		
19	48.38		
20	48.38		
21	48.38		
22		48.38	
23		48.38	
24		40.00	
No Penalty Added:	60.14	55.12	
Penalty Added:	60.14	65.12	
Average Equivalent Total (With Penalty):		66.32	
<b>Ldn:</b>	<b>52.52</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq <sub>s</sub> ]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 8</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		49.27
	6		49.27
	7	49.27	
	8	49.27	
	9	49.27	
	10	49.27	
	11	49.27	
	12	49.27	
	13	49.27	
	14	49.27	
	15	49.27	
	16	49.27	
	17	49.27	
	18	49.27	
	19	49.27	
	20	49.27	
	21	49.27	
	22		49.27
	23		49.27
	24		40.00
No Penalty Added:	61.04	55.89	
Penalty Added:	61.04	65.89	
Average Equivalent Total (With Penalty):		67.12	
<b>Ldn:</b>	<b>53.32</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leq <sub>s</sub> ]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 9</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00

Predicted Onsite Operational Noise Levels with Mit 1 only

3		40.00	
4		40.00	
5		49.02	
6		49.02	
7	49.02		
8	49.02		
9	49.02		
10	49.02		
11	49.02		
12	49.02		
13	49.02		
14	49.02		
15	49.02		
16	49.02		
17	49.02		
18	49.02		
19	49.02		
20	49.02		
21	49.02		
22		49.02	
23		49.02	
24		40.00	
No Penalty Added:		60.78	55.68
Penalty Added:		60.78	65.68
Average Equivalent Total (With Penalty):		66.89	
<b>Ldn:</b>		<b>53.09</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 10</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		57.03
	6		57.03
	7	57.03	
	8	57.03	
	9	57.03	
	10	57.03	
	11	57.03	
	12	57.03	
	13	57.03	
	14	57.03	
	15	57.03	
	16	57.03	
	17	57.03	
	18	57.03	
	19	57.03	
	20	57.03	
	21	57.03	
	22		57.03

Predicted Onsite Operational Noise Levels with Mit 1 only

23		57.03	
24		40.00	
No Penalty Added:	68.79	63.16	
Penalty Added:	68.79	73.16	
Average Equivalent Total (With Penalty):		74.51	
<b>Ldn:</b>	<b>60.71</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 11</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		55.24
	6		55.24
	7	55.24	
	8	55.24	
	9	55.24	
	10	55.24	
	11	55.24	
	12	55.24	
	13	55.24	
	14	55.24	
	15	55.24	
	16	55.24	
	17	55.24	
	18	55.24	
	19	55.24	
	20	55.24	
	21	55.24	
	22		55.24
	23		55.24
	24		40.00
No Penalty Added:	67.00	61.42	
Penalty Added:	67.00	71.42	
Average Equivalent Total (With Penalty):		72.76	
<b>Ldn:</b>	<b>58.96</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 12</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		54.71
	6		54.71
	7	54.71	
	8	54.71	
	9	54.71	
	10	54.71	

Predicted Onsite Operational Noise Levels with Mit 1 only

11	54.71		
12	54.71		
13	54.71		
14	54.71		
15	54.71		
16	54.71		
17	54.71		
18	54.71		
19	54.71		
20	54.71		
21	54.71		
22		54.71	
23		54.71	
24		40.00	
No Penalty Added:	66.47	60.91	
Penalty Added:	66.47	70.91	
Average Equivalent Total (With Penalty):		72.24	
<b>Ldn:</b>	<b>58.44</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 13</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		47.03
	6		47.03
	7	47.03	
	8	47.03	
	9	47.03	
	10	47.03	
	11	47.03	
	12	47.03	
	13	47.03	
	14	47.03	
	15	47.03	
	16	47.03	
	17	47.03	
	18	47.03	
	19	47.03	
	20	47.03	
	21	47.03	
	22		47.03
	23		47.03
	24		40.00
No Penalty Added:	58.79	54.01	
Penalty Added:	58.79	64.01	
Average Equivalent Total (With Penalty):		65.15	
<b>Ldn:</b>	<b>51.35</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			

Predicted Onsite Operational Noise Levels with Mit 1 only

<b>Receptor 14</b>		
Hours	Daytime	Nighttime
1		40.00
2		40.00
3		40.00
4		40.00
5		46.49
6		46.49
7	46.49	
8	46.49	
9	46.49	
10	46.49	
11	46.49	
12	46.49	
13	46.49	
14	46.49	
15	46.49	
16	46.49	
17	46.49	
18	46.49	
19	46.49	
20	46.49	
21	46.49	
22		46.49
23		46.49
24		40.00
No Penalty Added:		58.25 53.59
Penalty Added:		58.25 63.59
Average Equivalent Total (With Penalty):		64.70
<b>Ldn:</b>		<b>50.90</b>
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		
<b>Receptor 15</b>		
Hours	Daytime	Nighttime
1		40.00
2		40.00
3		40.00
4		40.00
5		47.36
6		47.36
7	47.36	
8	47.36	
9	47.36	
10	47.36	
11	47.36	
12	47.36	
13	47.36	
14	47.36	
15	47.36	
16	47.36	
17	47.36	
18	47.36	

Predicted Onsite Operational Noise Levels with Mit 1 only

19	47.36		
20	47.36		
21	47.36		
22		47.36	
23		47.36	
24		40.00	
No Penalty Added:	59.12	54.27	
Penalty Added:	59.12	64.27	
Average Equivalent Total (With Penalty):		65.43	
<b>Ldn:</b>	<b>51.63</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 16</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		46.15
	6		46.15
	7	46.15	
	8	46.15	
	9	46.15	
	10	46.15	
	11	46.15	
	12	46.15	
	13	46.15	
	14	46.15	
	15	46.15	
	16	46.15	
	17	46.15	
	18	46.15	
	19	46.15	
	20	46.15	
	21	46.15	
	22		46.15
	23		46.15
	24		40.00
No Penalty Added:	57.92	53.32	
Penalty Added:	57.92	63.32	
Average Equivalent Total (With Penalty):		64.42	
<b>Ldn:</b>	<b>50.62</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 17</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		46.44
	6		46.44

Predicted Onsite Operational Noise Levels with Mit 1 only

7	46.44		
8	46.44		
9	46.44		
10	46.44		
11	46.44		
12	46.44		
13	46.44		
14	46.44		
15	46.44		
16	46.44		
17	46.44		
18	46.44		
19	46.44		
20	46.44		
21	46.44		
22		46.44	
23		46.44	
24		40.00	
No Penalty Added:	58.20	53.54	
Penalty Added:	58.20	63.54	
Average Equivalent Total (With Penalty):		64.66	
<b>Ldn:</b>	<b>50.86</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 18</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		45.25
	6		45.25
	7	45.25	
	8	45.25	
	9	45.25	
	10	45.25	
	11	45.25	
	12	45.25	
	13	45.25	
	14	45.25	
	15	45.25	
	16	45.25	
	17	45.25	
	18	45.25	
	19	45.25	
	20	45.25	
	21	45.25	
	22		45.25
	23		45.25
	24		40.00
No Penalty Added:	57.01	52.65	
Penalty Added:	57.01	62.65	

Predicted Onsite Operational Noise Levels with Mit 1 only

Average Equivalent Total (With Penalty):	63.70	
<b>Ldn:</b>	<b>49.90</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Proposed Asphalt Batch Plant	4350	37.21		
Proposed Mining Equipment	3400	47.97		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		49.16		
TOTAL (above + Proposed Mining Equipment)		51.62	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Proposed Asphalt Batch Plant	4930	36.12		
Proposed Mining Equipment	3380	48.02		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.41		
TOTAL (above + Proposed Mining Equipment)		49.59	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Proposed Asphalt Batch Plant	2370	42.48		
Proposed Mining Equipment	870	59.81		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		57.35		
TOTAL (above + Proposed Mining Equipment)		61.76	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Proposed Asphalt Batch Plant	2160	43.29		
Proposed Mining Equipment	320	68.50		
		0		
		0		

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		68.63	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	560	63.64	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		64.15	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4100	46.34	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		50.23	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	4800	44.97	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		48.38	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	45.85		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>46.64</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>49.27</b>	<b>dB</b>	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	47.00		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>44.73</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>49.02</b>	<b>dB</b>	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	1440	55.43		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>51.91</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>57.03</b>	<b>dB</b>	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	1670	54.15		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		55.24	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	1810	53.45	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		54.71	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	45.19	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		47.03	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	45.08	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		46.49	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8960	39.74	
Proposed Asphalt Batch Plant	8240	31.66	
Proposed Mining Equipment	4080	46.39	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.37	
TOTAL (above + Proposed Mining Equipment)		47.36	dB
<b><u>Receptor 16</u></b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	9570	39.17	
Proposed Asphalt Batch Plant	8780	31.11	
Proposed Mining Equipment	4780	45.01	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		39.80	
TOTAL (above + Proposed Mining Equipment)		46.15	dB
<b><u>Receptor 17</u></b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	9830	38.94	
Proposed Asphalt Batch Plant	8990	30.90	
Proposed Mining Equipment	4550	45.44	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		39.57	
TOTAL (above + Proposed Mining Equipment)		46.44	dB
<b><u>Receptor 18</u></b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	12000	37.20	
Proposed Asphalt Batch Plant	11600	28.69	
Proposed Mining Equipment	5130	44.40	
		0	
		0	
		0	
		0	

		0		
		0		
Total (Existing Operational + Proposed ABP)		37.78		
TOTAL (above + Proposed Mining Equipment)		45.25	dB	

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Proposed Asphalt Batch Plant	4350	37.21		
Proposed Mining Equipment	3400	47.97		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		49.16		
TOTAL (above + Proposed Mining Equipment)		51.62	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Proposed Asphalt Batch Plant	4930	36.12		
Proposed Mining Equipment	3380	48.02		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.41		
TOTAL (above + Proposed Mining Equipment)		49.59	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Proposed Asphalt Batch Plant	2370	42.48		
Proposed Mining Equipment	870	59.81		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		57.35		
TOTAL (above + Proposed Mining Equipment)		61.76	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Proposed Asphalt Batch Plant	2160	43.29		
Proposed Mining Equipment	320	68.50		
		0		
		0		

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		68.63	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	560	63.64	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		64.15	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4100	46.34	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		50.23	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	4800	44.97	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		48.38	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	45.85		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>46.64</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>49.27</b>	<b>dB</b>	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	47.00		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>44.73</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>49.02</b>	<b>dB</b>	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	1440	55.43		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>51.91</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>57.03</b>	<b>dB</b>	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	1670	54.15		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		55.24	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	1810	53.45	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		54.71	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	45.19	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		47.03	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	45.08	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		46.49	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	8960	39.74		
Proposed Asphalt Batch Plant	8240	31.66		
Proposed Mining Equipment	4080	46.39		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		40.37		
TOTAL (above + Proposed Mining Equipment)		47.36	dB	
<b><u>Receptor 16</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9570	39.17		
Proposed Asphalt Batch Plant	8780	31.11		
Proposed Mining Equipment	4780	45.01		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.80		
TOTAL (above + Proposed Mining Equipment)		46.15	dB	
<b><u>Receptor 17</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9830	38.94		
Proposed Asphalt Batch Plant	8990	30.90		
Proposed Mining Equipment	4550	45.44		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.57		
TOTAL (above + Proposed Mining Equipment)		46.44	dB	
<b><u>Receptor 18</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	12000	37.20		
Proposed Asphalt Batch Plant	11600	28.69		
Proposed Mining Equipment	5130	44.40		
		0		
		0		
		0		
		0		

		0		
		0		
Total (Existing Operational + Proposed ABP)		37.78		
TOTAL (above + Proposed Mining Equipment)		45.25	dB	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	70.00	dB		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
19	3130	48.88		1	
24	3610	47.64		6	
25	4680	45.38		7	
26	4210	46.30		8	
27	5280	44.33		9	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
21	1200	57.20	3		
23	1660	54.38	5		
28	2280	51.63	10		

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	275	70.00	Reference		
22	1940	53.03	4		
29	3370	48.23	11		
30	3430	48.08	12		

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>70.00</b>	<b>dB</b>		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
20	5670	43.71	2		
31	7150	41.70	13		
32	8420	40.28	14		
33	8960	39.74	15		
34	9570	39.17	16		
35	9830	38.94	17		
36	12000	37.20	18		

	A	B	C	D	E
1	<b>Proposed Asphalt Batch Plant Noise Level</b>				
2					
3	<b>Source</b>				
4	Proposed Asphalt Batch Plant	76			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	<b>TOTAL:</b>	76.00	dB		
14					
15					
16	<b>NOISE DROP OFF CALCULATION</b>				
17	(feet)	(dB)			
18	50	76.00	Reference		
19	4350	37.21	1		
20	4930	36.12	2		
21	2370	42.48	3		
22	2160	43.29	4		
23	2320	42.67	5		
24	4810	36.34	6		
25	5860	34.62	7		
26	5340	35.43	8		
27	6230	34.09	9		
28	3180	39.93	10		
29	3500	39.10	11		
30	3120	40.10	12		
31	6230	34.09	13		
32	7670	32.28	14		
33	8240	31.66	15		
34	8780	31.11	16		
35	8990	30.90	17		
36	11600	28.69	18		

	A	B	C	D	E
1	<b>Proposed Mining/Reclamation Equipment Noise Level</b>				
2					
3	<u>Source</u>				
4	Dozer	75			
5	Dozer	75			
6	Scraper	80			
7	Loader	75			
8	Haul Truck	75			
9	Haul Truck	75			
10	Haul Truck	75			
11		0			
12		0			
13	<b>TOTAL:</b>	<b>84.62</b>	<b>dB</b>		
14					
15					
16	<b>Distance to Patterson Mining Site</b>				
17	(feet)	(dB)			
18	50	84.62	Reference		
19	3400	47.97	1	Phase 6	
20	3380	48.02	2	Phase 5	
21	870	59.81	3	Phase 6	
22	320	68.50	4	Phase 6	
23	560	63.64	5	Phase 6	
24	4100	46.34	6	Phase 6	
25	4800	44.97	7	Phase 6	
26	4340	45.85	8	Phase 3	
27	3800	47.00	9	Phase 3	
28	1440	55.43	10	Phase 6	
29	1670	54.15	11	Phase 6	
30	1810	53.45	12	Phase 6	
31	4680	45.19	13	Phase 5	
32	4740	45.08	14	Phase 5	
33	4080	46.39	15	Phase 5	
34	4780	45.01	16	Phase 5	
35	4550	45.44	17	Phase 5	
36	5130	44.40	18	Phase 4	

Receptor	Existing Site	expansion phase	asphalt plant		
1	3130	3400	4350	Phase 6	
2	5670	3380	4930	Phase 5	
3	1200	870	2370	Phase 6	
4	1940	320	2160	Phase 6	
5	1660	560	2320	Phase 6	
6	3610	4100	4810	Phase 6	
7	4680	4800	5860	Phase 6	
8	4210	4340	5340	Phase 3	
9	5280	3800	6230	Phase 3	
10	2280	1440	3180	Phase 6	
11	3370	1670	3500	Phase 6	
12	3430	1810	3120	Phase 6	
13	7150	4680	6230	Phase 5	
14	8420	4740	7670	Phase 5	
15	8960	4080	8240	Phase 5	
16	9570	4780	8780	Phase 5	
17	9830	4550	8990	Phase 5	
18	12000	5130	11600	Phase 4	

Projected Operational Noise Levels with All Mit. Summary

<b>Receptor</b>	<b>Ldn</b>	
1	53.75	88.22
2	50.93	54.35
3	61.32	62.82
4	62.96	60.53
5	60.67	61.93
6	52.67	72.7
7	50.81	60.05
8	51.78	88.22
9	50.80	62.41
10	56.46	59.11
11	54.05	55.69
12	54.08	55.33
13	49.10	51.25
14	48.41	50.1
15	48.63	49.88
16	47.96	49.15
17	48.03	48.99
18	47.14	47.1

Projected Operational Noise Levels with All Mit.

<b>Receptor</b>	<b>MaxLeqDaytime</b>	<b>MaxLeqNighttime</b>
1	51.00	49.16
2	49.59	44.41
3	58.36	57.35
4	64.05	53.47
5	60.21	54.67
6	49.83	47.95
7	47.77	45.73
8	49.27	46.64
9	49.02	44.73
10	54.16	51.91
11	52.41	48.73
12	52.50	48.72
13	47.03	42.39
14	46.49	40.92
15	47.36	40.37
16	46.15	40.00
17	46.44	40.00
18	45.25	40.00

Predicted Onsite Operational Noise Levels with All Mit.

<b>Receptor 1</b>			
Hours	Daytime	Nighttime	Hours
1		40.00	1.2
2		40.00	2.3
3		40.00	3.4
4		40.00	4.5
5		49.16	5.6
6		49.16	6.7
7	51.00		7.8
8	51.00		8.9
9	51.00		9.10
10	51.00		10.11
11	51.00		11.12
12	51.00		12.1
13	51.00		1.2
14	51.00		2.3
15	51.00		3.4
16	51.00		4.5
17	51.00		5.6
18	51.00		6.7
19	51.00		7.8
20	51.00		8.9
21	51.00		9.10
22		49.16	10.11
23		49.16	11.12
24		40.00	12.1
No Penalty Added:		62.76	55.79
Penalty Added:		62.76	65.79
Average Equivalent Total (With Penalty):		67.55	
<b>Ldn:</b>		<b>53.75</b>	
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 2</b>			
Hours	Daytime	Nighttime	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		44.41	
6		44.41	
7	49.59		
8	49.59		
9	49.59		
10	49.59		
11	49.59		
12	49.59		
13	49.59		
14	49.59		
15	49.59		
16	49.59		
17	49.59		
18	49.59		
19	49.59		

Predicted Onsite Operational Noise Levels with All Mit.

20	49.59		
21	49.59		
22		44.41	
23		44.41	
24		40.00	
No Penalty Added:	61.35	52.05	
Penalty Added:	61.35	62.05	
Average Equivalent Total (With Penalty):		64.73	
<b>Ldn:</b>	<b>50.93</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 3</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		57.35
	6		57.35
	7	58.36	
	8	58.36	
	9	58.36	
	10	58.36	
	11	58.36	
	12	58.36	
	13	58.36	
	14	58.36	
	15	58.36	
	16	58.36	
	17	58.36	
	18	58.36	
	19	58.36	
	20	58.36	
	21	58.36	
	22		57.35
	23		57.35
	24		40.00
No Penalty Added:	70.12	63.47	
Penalty Added:	70.12	73.47	
Average Equivalent Total (With Penalty):		75.12	
<b>Ldn:</b>	<b>61.32</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 4</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		53.47
	6		53.47
	7	64.05	

Predicted Onsite Operational Noise Levels with All Mit.

8	64.05		
9	64.05		
10	64.05		
11	64.05		
12	64.05		
13	64.05		
14	64.05		
15	64.05		
16	64.05		
17	64.05		
18	64.05		
19	64.05		
20	64.05		
21	64.05		
22		53.47	
23		53.47	
24		40.00	
No Penalty Added:	75.81	59.73	
Penalty Added:	75.81	69.73	
Average Equivalent Total (With Penalty):		76.76	
<b>Ldn:</b>	<b>62.96</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 5</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		54.67
	6		54.67
	7	60.21	
	8	60.21	
	9	60.21	
	10	60.21	
	11	60.21	
	12	60.21	
	13	60.21	
	14	60.21	
	15	60.21	
	16	60.21	
	17	60.21	
	18	60.21	
	19	60.21	
	20	60.21	
	21	60.21	
	22		54.67
	23		54.67
	24		40.00
No Penalty Added:	71.97	60.87	
Penalty Added:	71.97	70.87	
Average Equivalent Total (With Penalty):		74.47	

Predicted Onsite Operational Noise Levels with All Mit.

<b>Ldn:</b>	<b>60.67</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 6</b>			
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		47.95	
6		47.95	
7	49.83		
8	49.83		
9	49.83		
10	49.83		
11	49.83		
12	49.83		
13	49.83		
14	49.83		
15	49.83		
16	49.83		
17	49.83		
18	49.83		
19	49.83		
20	49.83		
21	49.83		
22		47.95	
23		47.95	
24		40.00	
No Penalty Added:	61.59	54.76	
Penalty Added:	61.59	64.76	
Average Equivalent Total (With Penalty):		66.47	
<b>Ldn:</b>	<b>52.67</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 7</b>			
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
1		40.00	
2		40.00	
3		40.00	
4		40.00	
5		45.73	
6		45.73	
7	47.77		
8	47.77		
9	47.77		
10	47.77		
11	47.77		
12	47.77		
13	47.77		
14	47.77		
15	47.77		

Predicted Onsite Operational Noise Levels with All Mit.

16	47.77			
17	47.77			
18	47.77			
19	47.77			
20	47.77			
21	47.77			
22		45.73		
23		45.73		
24		40.00		
No Penalty Added:	59.53	53.00		
Penalty Added:	59.53	63.00		
Average Equivalent Total (With Penalty):		64.61		
<b>Ldn:</b>	<b>50.81</b>			

Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8

Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)

<b>Receptor 8</b>				
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
	1		40.00	
	2		40.00	
	3		40.00	
	4		40.00	
	5		46.64	
	6		46.64	
	7	49.27		
	8	49.27		
	9	49.27		
	10	49.27		
	11	49.27		
	12	49.27		
	13	49.27		
	14	49.27		
	15	49.27		
	16	49.27		
	17	49.27		
	18	49.27		
	19	49.27		
	20	49.27		
	21	49.27		
	22		46.64	
	23		46.64	
	24		40.00	
No Penalty Added:	61.04	53.70		
Penalty Added:	61.04	63.70		
Average Equivalent Total (With Penalty):		65.58		
<b>Ldn:</b>	<b>51.78</b>			

Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8

Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)

<b>Receptor 9</b>				
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
	1		40.00	
	2		40.00	

Predicted Onsite Operational Noise Levels with All Mit.

3		40.00		
4		40.00		
5		44.73		
6		44.73		
7	49.02			
8	49.02			
9	49.02			
10	49.02			
11	49.02			
12	49.02			
13	49.02			
14	49.02			
15	49.02			
16	49.02			
17	49.02			
18	49.02			
19	49.02			
20	49.02			
21	49.02			
22		44.73		
23		44.73		
24		40.00		
No Penalty Added:		60.78	52.28	
Penalty Added:		60.78	62.28	
Average Equivalent Total (With Penalty):		64.60		
<b>Ldn:</b>		<b>50.80</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8				
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)				
<b>Receptor 10</b>				
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
1			40.00	
2			40.00	
3			40.00	
4			40.00	
5			51.91	
6			51.91	
7	54.16			
8	54.16			
9	54.16			
10	54.16			
11	54.16			
12	54.16			
13	54.16			
14	54.16			
15	54.16			
16	54.16			
17	54.16			
18	54.16			
19	54.16			
20	54.16			
21	54.16			
22			51.91	

Predicted Onsite Operational Noise Levels with All Mit.

23		51.91		
24		40.00		
No Penalty Added:	65.92	58.27		
Penalty Added:	65.92	68.27		
Average Equivalent Total (With Penalty):		70.26		
<b>Ldn:</b>	<b>56.46</b>			
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8				
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)				
<b>Receptor 11</b>				
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
	1		40.00	
	2		40.00	
	3		40.00	
	4		40.00	
	5		48.73	
	6		48.73	
	7	52.41		
	8	52.41		
	9	52.41		
	10	52.41		
	11	52.41		
	12	52.41		
	13	52.41		
	14	52.41		
	15	52.41		
	16	52.41		
	17	52.41		
	18	52.41		
	19	52.41		
	20	52.41		
	21	52.41		
	22		48.73	
	23		48.73	
	24		40.00	
No Penalty Added:	64.17	55.42		
Penalty Added:	64.17	65.42		
Average Equivalent Total (With Penalty):		67.85		
<b>Ldn:</b>	<b>54.05</b>			
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8				
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)				
<b>Receptor 12</b>				
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>	
	1		40.00	
	2		40.00	
	3		40.00	
	4		40.00	
	5		48.72	
	6		48.72	
	7	52.50		
	8	52.50		
	9	52.50		
	10	52.50		

Predicted Onsite Operational Noise Levels with All Mit.

11	52.50		
12	52.50		
13	52.50		
14	52.50		
15	52.50		
16	52.50		
17	52.50		
18	52.50		
19	52.50		
20	52.50		
21	52.50		
22		48.72	
23		48.72	
24		40.00	
No Penalty Added:	64.26	55.41	
Penalty Added:	64.26	65.41	
Average Equivalent Total (With Penalty):		67.88	
<b>Ldn:</b>	<b>54.08</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 13</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1			40.00
2			40.00
3			40.00
4			40.00
5			42.39
6			42.39
7	47.03		
8	47.03		
9	47.03		
10	47.03		
11	47.03		
12	47.03		
13	47.03		
14	47.03		
15	47.03		
16	47.03		
17	47.03		
18	47.03		
19	47.03		
20	47.03		
21	47.03		
22			42.39
23			42.39
24			40.00
No Penalty Added:	58.79	50.77	
Penalty Added:	58.79	60.77	
Average Equivalent Total (With Penalty):		62.90	
<b>Ldn:</b>	<b>49.10</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			

Predicted Onsite Operational Noise Levels with All Mit.

<b>Receptor 14</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		40.92
6		40.92
7	46.49	
8	46.49	
9	46.49	
10	46.49	
11	46.49	
12	46.49	
13	46.49	
14	46.49	
15	46.49	
16	46.49	
17	46.49	
18	46.49	
19	46.49	
20	46.49	
21	46.49	
22		40.92
23		40.92
24		40.00
No Penalty Added:		58.25 49.98
Penalty Added:		58.25 59.98
Average Equivalent Total (With Penalty):		62.21
<b>Ldn:</b>		<b>48.41</b>
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8		
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)		
<b>Receptor 15</b>		
<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1		40.00
2		40.00
3		40.00
4		40.00
5		40.37
6		40.37
7	47.36	
8	47.36	
9	47.36	
10	47.36	
11	47.36	
12	47.36	
13	47.36	
14	47.36	
15	47.36	
16	47.36	
17	47.36	
18	47.36	

Predicted Onsite Operational Noise Levels with All Mit.

19	47.36		
20	47.36		
21	47.36		
22		40.37	
23		40.37	
24		40.00	
No Penalty Added:	59.12	49.71	
Penalty Added:	59.12	59.71	
Average Equivalent Total (With Penalty):		62.43	
<b>Ldn:</b>	<b>48.63</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 16</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		39.80
	6		39.80
	7	46.15	
	8	46.15	
	9	46.15	
	10	46.15	
	11	46.15	
	12	46.15	
	13	46.15	
	14	46.15	
	15	46.15	
	16	46.15	
	17	46.15	
	18	46.15	
	19	46.15	
	20	46.15	
	21	46.15	
	22		39.80
	23		39.80
	24		40.00
No Penalty Added:	57.92	49.45	
Penalty Added:	57.92	59.45	
Average Equivalent Total (With Penalty):		61.76	
<b>Ldn:</b>	<b>47.96</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 17</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
	1		40.00
	2		40.00
	3		40.00
	4		40.00
	5		39.57
	6		39.57

Predicted Onsite Operational Noise Levels with All Mit.

7	46.44		
8	46.44		
9	46.44		
10	46.44		
11	46.44		
12	46.44		
13	46.44		
14	46.44		
15	46.44		
16	46.44		
17	46.44		
18	46.44		
19	46.44		
20	46.44		
21	46.44		
22		39.57	
23		39.57	
24		40.00	
No Penalty Added:	58.20	49.36	
Penalty Added:	58.20	59.36	
Average Equivalent Total (With Penalty):		61.83	
<b>Ldn:</b>	<b>48.03</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			
<b>Receptor 18</b>			
	<b>Hours</b>	<b>Daytime</b>	<b>Nighttime</b>
1			40.00
2			40.00
3			40.00
4			40.00
5			37.78
6			37.78
7	45.25		
8	45.25		
9	45.25		
10	45.25		
11	45.25		
12	45.25		
13	45.25		
14	45.25		
15	45.25		
16	45.25		
17	45.25		
18	45.25		
19	45.25		
20	45.25		
21	45.25		
22			37.78
23			37.78
24			40.00
No Penalty Added:	57.01	48.69	
Penalty Added:	57.01	58.69	

Predicted Onsite Operational Noise Levels with All Mit.

Average Equivalent Total (With Penalty):	60.94		
<b>Ldn:</b>	<b>47.14</b>		
Ldn=10Logv10[Energy Sum of 24 hourly Leqqs]-13.8			
Ldn includes penalty for noise occurring during nighttime hours (shaded in grey)			

<b>Receptor 1</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3130	48.88		
Proposed Asphalt Batch Plant	4350	37.21		
Proposed Mining Equipment	4085	46.38		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		49.16		
TOTAL (above + Proposed Mining Equipment)		51.00	dB	
<b>Receptor 2</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5670	43.71		
Proposed Asphalt Batch Plant	4930	36.12		
Proposed Mining Equipment	3380	48.02		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.41		
TOTAL (above + Proposed Mining Equipment)		49.59	dB	
<b>Receptor 3</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1200	57.20		
Proposed Asphalt Batch Plant	2370	42.48		
Proposed Mining Equipment	2250	51.56		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		57.35		
TOTAL (above + Proposed Mining Equipment)		58.36	dB	
<b>Receptor 4</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	1940	53.03		
Proposed Asphalt Batch Plant	2160	43.29		
Proposed Mining Equipment	320	63.65		
		0		
		0		

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		64.05	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	560	58.79	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		60.21	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4630	45.29	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		49.83	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	5690	43.50	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		47.77	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	45.85		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		46.64		
TOTAL (above + Proposed Mining Equipment)		49.27	dB	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	47.00		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.73		
TOTAL (above + Proposed Mining Equipment)		49.02	dB	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	2625	50.22		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		51.91		
TOTAL (above + Proposed Mining Equipment)		54.16	dB	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	2700	49.97		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		52.41	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	2650	50.13	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		52.50	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	45.19	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		47.03	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	45.08	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		46.49	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	8960	39.74		
Proposed Asphalt Batch Plant	8240	31.66		
Proposed Mining Equipment	4080	46.39		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		40.37		
TOTAL (above + Proposed Mining Equipment)		47.36	dB	
<b><u>Receptor 16</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9570	39.17		
Proposed Asphalt Batch Plant	8780	31.11		
Proposed Mining Equipment	4780	45.01		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.80		
TOTAL (above + Proposed Mining Equipment)		46.15	dB	
<b><u>Receptor 17</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9830	38.94		
Proposed Asphalt Batch Plant	8990	30.90		
Proposed Mining Equipment	4550	45.44		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		39.57		
TOTAL (above + Proposed Mining Equipment)		46.44	dB	
<b><u>Receptor 18</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	12000	37.20		
Proposed Asphalt Batch Plant	11600	28.69		
Proposed Mining Equipment	5130	44.40		
		0		
		0		
		0		
		0		

		0		
		0		
Total (Existing Operational + Proposed ABP)		37.78		
TOTAL (above + Proposed Mining Equipment)		45.25	dB	

<b>Receptor 1</b>		
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>
Existing Operational	3130	48.88
Proposed Asphalt Batch Plant	4350	37.21
Proposed Mining Equipment	4085	46.38
		0
		0
		0
		0
		0
		0
Total (Existing Operational + Proposed ABP)		49.16
TOTAL (above + Proposed Mining Equipment)		49.16 dB
<b>Receptor 2</b>		
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>
Existing Operational	5670	43.71
Proposed Asphalt Batch Plant	4930	36.12
Proposed Mining Equipment	3380	48.02
		0
		0
		0
		0
		0
		0
Total (Existing Operational + Proposed ABP)		44.41
TOTAL (above + Proposed Mining Equipment)		44.41 dB
<b>Receptor 3</b>		
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>
Existing Operational	1200	57.20
Proposed Asphalt Batch Plant	2370	42.48
Proposed Mining Equipment	2250	51.56
		0
		0
		0
		0
		0
		0
Total (Existing Operational + Proposed ABP)		57.35
TOTAL (above + Proposed Mining Equipment)		57.35 dB
<b>Receptor 4</b>		
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>
Existing Operational	1940	53.03
Proposed Asphalt Batch Plant	2160	43.29
Proposed Mining Equipment	1500	55.08
		0
		0

		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		53.47	
TOTAL (above + Proposed Mining Equipment)		53.47	dB
<b>Receptor 5</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	1660	54.38	
Proposed Asphalt Batch Plant	2320	42.67	
Proposed Mining Equipment	1600	54.52	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		54.67	
TOTAL (above + Proposed Mining Equipment)		54.67	dB
<b>Receptor 6</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3610	47.64	
Proposed Asphalt Batch Plant	4810	36.34	
Proposed Mining Equipment	4630	45.29	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		47.95	
TOTAL (above + Proposed Mining Equipment)		47.95	dB
<b>Receptor 7</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	4680	45.38	
Proposed Asphalt Batch Plant	5860	34.62	
Proposed Mining Equipment	5690	43.50	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		45.73	
TOTAL (above + Proposed Mining Equipment)		45.73	dB
<b>Receptor 8</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	4210	46.30		
Proposed Asphalt Batch Plant	5340	35.43		
Proposed Mining Equipment	4340	45.85		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		46.64		
TOTAL (above + Proposed Mining Equipment)		46.64	dB	
<b><u>Receptor 9</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	5280	44.33		
Proposed Asphalt Batch Plant	6230	34.09		
Proposed Mining Equipment	3800	47.00		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		44.73		
TOTAL (above + Proposed Mining Equipment)		44.73	dB	
<b><u>Receptor 10</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	2280	51.63		
Proposed Asphalt Batch Plant	3180	39.93		
Proposed Mining Equipment	2625	50.22		
		0		
		0		
		0		
		0		
		0		
		0		
Total (Existing Operational + Proposed ABP)		51.91		
TOTAL (above + Proposed Mining Equipment)		51.91	dB	
<b><u>Receptor 11</u></b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	3370	48.23		
Proposed Asphalt Batch Plant	3500	39.10		
Proposed Mining Equipment	2700	49.97		
		0		
		0		
		0		

		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.73	
TOTAL (above + Proposed Mining Equipment)		48.73	dB
<b>Receptor 12</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	3430	48.08	
Proposed Asphalt Batch Plant	3120	40.10	
Proposed Mining Equipment	2650	50.13	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		48.72	
TOTAL (above + Proposed Mining Equipment)		48.72	dB
<b>Receptor 13</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	7150	41.70	
Proposed Asphalt Batch Plant	6230	34.09	
Proposed Mining Equipment	4680	45.19	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		42.39	
TOTAL (above + Proposed Mining Equipment)		42.39	dB
<b>Receptor 14</b>			
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>	
Existing Operational	8420	40.28	
Proposed Asphalt Batch Plant	7670	32.28	
Proposed Mining Equipment	4740	45.08	
		0	
		0	
		0	
		0	
		0	
		0	
Total (Existing Operational + Proposed ABP)		40.92	
TOTAL (above + Proposed Mining Equipment)		40.92	dB
<b>Receptor 15</b>			

<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	8960	39.74		
Proposed Asphalt Batch Plant	8240	31.66		
Proposed Mining Equipment	4080	46.39		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>40.37</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>40.37</b>	<b>dB</b>	
<b>Receptor 16</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9570	39.17		
Proposed Asphalt Batch Plant	8780	31.11		
Proposed Mining Equipment	4780	45.01		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>39.80</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>39.80</b>	<b>dB</b>	
<b>Receptor 17</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	9830	38.94		
Proposed Asphalt Batch Plant	8990	30.90		
Proposed Mining Equipment	4550	45.44		
		0		
		0		
		0		
		0		
		0		
		0		
<b>Total (Existing Operational + Proposed ABP)</b>		<b>39.57</b>		
<b>TOTAL (above + Proposed Mining Equipment)</b>		<b>39.57</b>	<b>dB</b>	
<b>Receptor 18</b>				
<u>Source</u>	<u>Distance</u>	<u>Noise Level</u>		
Existing Operational	12000	37.20		
Proposed Asphalt Batch Plant	11600	28.69		
Proposed Mining Equipment	5130	44.40		
		0		
		0		
		0		
		0		

		0		
		0		
Total (Existing Operational + Proposed ABP)		37.78		
TOTAL (above + Proposed Mining Equipment)		37.78	dB	

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<u>NOISE DROP OFF CALCULATION</u>				
17	(feet)	(dB)			
18	275	70.00	Reference		
19	3130	48.88	1		
24	3610	47.64	6		
25	4680	45.38	7		
26	4210	46.30	8		
27	5280	44.33	9		
37					
38					

	A	B	C	D	E
1	<b><u>Existing Operational Noise Level</u></b>				
2					
3	<b><u>Source</u></b>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<b><u>NOISE DROP OFF CALCULATION</u></b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
21	1200	57.20		3	
23	1660	54.38		5	
28	2280	51.63		10	
37					
38					
39					
40					
41					

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00	dB		
14					
15					
16	<b>NOISE DROP OFF CALCULATION</b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
22	1940	53.03	4		
29	3370	48.23	11		
30	3430	48.08	12		
37					
38					
39					
40					
41					
42					

	A	B	C	D	E
1	<b>Existing Operational Noise Level</b>				
2					
3	<u>Source</u>				
4	Existing Sand and Gravel Operations	70			
5		0			
6		0			
7		0			
8		0			
9		0			
10		0			
11		0			
12		0			
13	TOTAL:	70.00 dB			
14					
15					
16	<b>NOISE DROP OFF CALCULATION</b>				
17	(feet)	(dB)			
18	275	70.00	Reference		
20	5670	43.71		2	
31	7150	41.70		13	
32	8420	40.28		14	
33	8960	39.74		15	
34	9570	39.17		16	
35	9830	38.94		17	
36	12000	37.20		18	
37					

	A	B	C	D	E
1	<b>Proposed Asphalt Batch Plant Noise Level</b>				
2					
3	<u>Source</u>				
4	Proposed Asphalt Batch Plant		76		
5			0		
6			0		
7			0		
8			0		
9			0		
10			0		
11			0		
12			0		
13	TOTAL:		76.00	dB	
14					
15					
16	<b>NOISE DROP OFF CALCULATION</b>				
17	(feet)	(dB)			
18	50	76.00	Reference		
19	4350	37.21		1	
20	4930	36.12		2	
21	2370	42.48		3	
22	2160	43.29		4	
23	2320	42.67		5	
24	4810	36.34		6	
25	5860	34.62		7	
26	5340	35.43		8	
27	6230	34.09		9	
28	3180	39.93		10	
29	3500	39.10		11	
30	3120	40.10		12	
31	6230	34.09		13	
32	7670	32.28		14	
33	8240	31.66		15	
34	8780	31.11		16	
35	8990	30.90		17	
36	11600	28.69		18	

**Proposed Mining/Reclamation Equipment Noise Level**

<u>Source</u>	
Dozer	75
Excavator	75
Excavator	75
Conveyor	0
	0
<hr/>	
TOTAL:	79.77 dB

**Distance to Patterson Mining Site**

(feet)	(dB)	
50	79.77	Reference
320	63.65	4 Phase 6
560	58.79	5 Phase 6

	A	B	C	D	E
1	<b>Proposed Mining/Reclamation Equipment Noise Level</b>				
2					
3	<u>Source</u>				
4	Dozer	75			
5	Dozer	75			
6	Scraper	80			
7	Loader	75			
8	Haul Truck	75			
9	Haul Truck	75			
10	Haul Truck	75			
11		0			
12		0			
13	TOTAL:	84.62	dB		
14					
15					
16	<u>Distance to Patterson Mining Site</u>				
17	(feet)	(dB)			
18	50	84.62	Reference		
19	4085	46.38	1	Phase 3	
20	3380	48.02	2	Phase 5	
21	2250	51.56	3	Phase 6	
22	1500	55.08	4	Phase 6	
23	1600	54.52	5	Phase 6	
24	4630	45.29	6	Phase 3	
25	5690	43.50	7	Phase 3	
26	4340	45.85	8	Phase 3	
27	3800	47.00	9	Phase 3	
28	2625	50.22	10	Phase 6	
29	2700	49.97	11	Phase 6	
30	2650	50.13	12	Phase 6	
31	4680	45.19	13	Phase 5	
32	4740	45.08	14	Phase 5	
33	4080	46.39	15	Phase 5	
34	4780	45.01	16	Phase 5	
35	4550	45.44	17	Phase 5	
36	5130	44.40	18	Phase 4	
37					

Receptor	Existing Site	expansion phase	asphalt plant		
1	3130	4085	4350	Phase 3	nearest phase changed
2	5670	3380	4930	Phase 5	
3	1200	2250	2370	Phase 6	distance to nw corner
4	1940	1500	2160	Phase 6	
5	1660	1600	2320	Phase 6	Line of sight
6	3610	4630	4810	Phase 3	nearest phase changed
7	4680	5690	5860	Phase 3	nearest phase changed
8	4210	4340	5340	Phase 3	
9	5280	3800	6230	Phase 3	
10	2280	2625	3180	Phase 6	distance to nw corner
11	3370	2700	3500	Phase 6	distance to nw corner
12	3430	2650	3120	Phase 6	distance to nw corner
13	7150	4680	6230	Phase 5	
14	8420	4740	7670	Phase 5	
15	8960	4080	8240	Phase 5	
16	9570	4780	8780	Phase 5	
17	9830	4550	8990	Phase 5	
18	12000	5130	11600	Phase 4	



## **F4. FHWA Noise Modeling Results**

### **1. Traffic Distribution Percentages for Input into FHWA Traffic Model**

Traffic Distribution Percentages for Input into FHWA Traffic Model																
Existing and Existing + Project Traffic Volumes (Average Day): No New Haul Road																
Description	Tot.Auto	Tot.HI	Tot.Vol	Tot.AU%	Tot.MT%	Tot.HT%	dayau	evenau	nightau	dayMT	even.MT	nightMT	dayHT	even.HT	nightHT	
existing average riosa east	1400	550	1950	70.79	1.00	28.21	54.86	9.13	6.80	0.85	0.05	0.10	25.66	0.01	2.54	100.00
existing average riosa east + project	1408	440	1848	75.19	1.00	23.81	58.26	9.70	7.22	0.85	0.05	0.10	21.66	0.01	2.14	100.00
existing average riosa dt	2400	550	2950	80.36	1.00	18.64	62.27	10.37	7.72	0.85	0.05	0.10	16.96	0.01	1.68	100.00
existing average riosa dt +project	2408	440	2848	83.55	1.00	15.45	64.74	10.78	8.03	0.85	0.05	0.10	14.05	0.01	1.39	100.00
existing average camp far	300	550	850	34.29	1.00	64.71	26.57	4.42	3.30	0.85	0.05	0.10	58.87	0.01	5.82	100.00
existing average camp far + project	308	440	748	40.18	1.00	58.82	31.13	5.18	3.86	0.85	0.05	0.10	53.52	0.01	5.29	100.00
existing karcher	200	550	750	25.67	1.00	73.33	19.89	3.31	2.47	0.85	0.05	0.10	66.72	0.01	6.60	100.00
existing karcher + project	208	440	648	31.10	1.00	67.90	24.10	4.01	2.99	0.85	0.05	0.10	61.78	0.01	6.11	100.00
ext 65 north of riosa	13600	1400	15000	89.67	1.00	9.33	69.48	11.57	8.62	0.85	0.05	0.10	8.48	0.01	0.84	100.00
ext 65 north of riosa + project	13601	1389	14990	89.73	1.00	9.27	69.53	11.58	8.62	0.85	0.05	0.10	8.42	0.01	0.83	100.00
ext 65 south of riosa	12900	1400	14300	89.21	1.00	9.79	69.13	11.51	8.57	0.85	0.05	0.10	8.90	0.01	0.88	100.00
ext 65 south of riosa + project	12901	1301	14208	89.84	1.00	9.16	69.62	11.59	8.63	0.85	0.05	0.10	8.32	0.01	0.82	100.00
ext 65 north of 193	12800	2900	15700	80.53	1.00	18.47	62.40	10.39	7.74	0.85	0.05	0.10	16.80	0.01	1.66	100.00
ext 65 north of 193 + project	12807	2801	15608	81.05	1.00	17.95	62.81	10.46	7.79	0.85	0.05	0.10	16.32	0.01	1.62	100.00
ext 65 south of 193	16300	2500	18800	85.70	1.00	13.30	66.41	11.06	8.28	0.85	0.05	0.10	12.09	0.01	1.20	100.00
ext 65 south of 193 + project	16307	2406	18713	86.14	1.00	12.86	66.75	11.11	8.28	0.85	0.05	0.10	11.69	0.01	1.16	100.00
Existing and Existing + Project Traffic Volumes (Average Day): With New Haul Road	Tot.Auto	Tot.HI	Tot.Vol	Tot.AU%	Tot.MT%	Tot.HT%	dayau	evenau	nightau	dayMT	even.MT	nightMT	dayHT	even.HT	nightHT	
existing average riosa east	1400	550	1950	70.79	1.00	28.21	54.86	9.13	6.80	0.85	0.05	0.10	25.66	0.01	2.54	100.00
existing average riosa east + project	1408	440	1848	75.19	1.00	23.81	58.26	9.70	7.22	0.85	0.05	0.10	21.66	0.01	2.14	100.00
existing average riosa dt	2400	550	2950	80.36	1.00	18.64	62.27	10.37	7.72	0.85	0.05	0.10	16.96	0.01	1.68	100.00
existing average riosa dt +project	1670	0	1670	99.00	1.00	0.00	76.69	12.77	9.51	0.85	0.05	0.10	0.01	0.01	0.01	100.00
existing average camp far	300	550	850	34.29	1.00	64.71	26.57	4.42	3.30	0.85	0.05	0.10	58.87	0.01	5.82	100.00
existing average camp far + project	308	440	748	40.18	1.00	58.82	31.13	5.18	3.86	0.85	0.05	0.10	53.52	0.01	5.29	100.00
existing karcher	200	550	750	25.67	1.00	73.33	19.89	3.31	2.47	0.85	0.05	0.10	66.72	0.01	6.60	100.00
existing karcher + project	208	440	648	31.10	1.00	67.90	24.10	4.01	2.99	0.85	0.05	0.10	61.78	0.01	6.11	100.00
ext 65 north of riosa	13600	1400	15000	89.67	1.00	9.33	69.48	11.57	8.62	0.85	0.05	0.10	8.42	0.01	0.84	100.00
ext 65 north of riosa + project	13601	1389	14990	89.73	1.00	9.27	69.53	11.58	8.62	0.85	0.05	0.10	8.42	0.01	0.83	100.00
ext 65 south of riosa	12900	1400	14300	89.21	1.00	9.79	69.13	11.51	8.57	0.85	0.05	0.10	8.90	0.01	0.88	100.00
ext 65 south of riosa + project	12901	1301	14208	89.84	1.00	9.16	69.62	11.59	8.63	0.85	0.05	0.10	8.32	0.01	0.82	100.00
ext 65 north of 193	12800	2900	15700	80.53	1.00	18.47	62.40	10.39	7.74	0.85	0.05	0.10	16.80	0.01	1.66	100.00
ext 65 north of 193 + project	12807	2801	15608	81.05	1.00	17.95	62.81	10.46	7.79	0.85	0.05	0.10	16.32	0.01	1.62	100.00
ext 65 south of 193	16300	2500	18800	85.70	1.00	13.30	66.41	11.06	8.28	0.85	0.05	0.10	12.09	0.01	1.20	100.00
ext 65 south of 193 + project	16307	2406	18713	86.14	1.00	12.86	66.75	11.11	8.28	0.85	0.05	0.10	11.69	0.01	1.16	100.00
ext haul route	0	0	0	#DIV/0!	1.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.85	0.05	0.10	#DIV/0!	0.01	#DIV/0!	#DIV/0!
ext haul route + project	730	440	1170	61.39	1.00	37.61	47.57	7.92	5.90	0.85	0.05	0.10	34.21	0.01	3.38	100.00
Description	Speed (mi)	Grade (%)	Lanes	Active	Halt-Width											
existing average riosa east	25	0.5	2.00	6.00												
existing average riosa east + project	25	0.5	2.00	6.00												
existing average riosa dt	25	0.5	2.00	6.00												
existing average riosa dt +project	25	0.5	2.00	6.00												
existing average camp far	25	0.5	2.00	6.00												
existing average camp far + project	25	0.5	2.00	6.00												
existing karcher	25	0.5	2.00	6.00												
existing karcher + project	25	0.5	2.00	6.00												
ext 65 north of riosa	55	0.5	2.00	6.00												
ext 65 north of riosa + project	55	0.5	2.00	6.00												
ext 65 south of riosa	55	0.5	2.00	6.00												
ext 65 south of riosa + project	55	0.5	2.00	6.00												
ext 65 north of 193	55	0.5	2.00	6.00												
ext 65 north of 193 + project	55	0.5	2.00	6.00												
ext 65 south of 193	55	0.5	2.00	6.00												
ext 65 south of 193 + project	55	0.5	2.00	6.00												

\*ADT from traffic report, and vehicle distribution based on traffic report, hours of operation, and % into from FHWA

## **F4. FHWA Noise Modeling Results**

### **2. Existing and Existing Plus Project Traffic Noise Levels**

Traffic Noise Levels (FHWA) Ext & Ext+Pro

RUN NAME: EXT RIOSA EAST      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
54.86      9.13      6.80  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
25.66      0.01      2.54

ADT: 1950      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.17  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      105.7      227.3

RUN NAME: EXT RIOSA EAST+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
58.26      9.70      7.22  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
21.66      0.01      2.14

ADT: 1848      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.24  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      91.7      197.1

RUN NAME: EXT RIOSA DT      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

62.27      10.37      7.72

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

16.96      0.01      1.68

ADT: 2950      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.29

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      107.7      231.6

RUN NAME: EXT RIOSA DT+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

64.74      10.78      8.03

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

14.05      0.01      1.39

ADT: 2848      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.39

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      93.8      201.8

RUN NAME: EXT CAMP FAR      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

26.57      4.42      3.30

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

58.87      0.01      5.82

ADT: 850      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.03  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      103.4      222.5

RUN NAME: EXT CAMP FAR+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

31.13      5.18      3.86

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

53.52      0.01      5.29

ADT: 748      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.07  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      89.3      192.1

RUN NAME: EXT KARCHNER      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

19.89      3.31      2.47

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

66.72      0.01      6.60

ADT: 750      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.01

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      103.3      222.1

RUN NAME: EXT KARCHNER+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

24.10      4.01      2.99

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

61.78      0.01      6.11

ADT: 648      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.05

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      89.1      191.7

RUN NAME: EXT 65 NORTH OF RIOSA      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---

AUTOS

69.48      11.57      8.62

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.48      0.01      0.84

ADT: 15000      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.62

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----

113.4      243.9      525.3      1131.4

RUN NAME: EXT 65 NORTH OF RIOSA+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---

AUTOS

69.53      11.58      8.62

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.42      0.01      0.83

ADT: 14990      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.59

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----

112.8      242.8      522.8      1126.0

RUN NAME: EXT 65 SOUTH OF RIOSA      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

69.13      11.51      8.57

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.90      0.01      0.88

ADT: 14300      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.55

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
112.2      241.3      519.7      1119.3

RUN NAME: EXT 65 SOUTH OF RIOSA+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

69.62      11.59      8.63

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.32      0.01      0.82

ADT: 14208      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.33

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
108.3      233.0      501.8      1080.8

RUN NAME: EXT 65 NORTH OF 193      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

62.40      10.39      7.74

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

16.80      0.01      1.66

ADT: 15700      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 77.00

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
163.1      351.1      756.2      1628.9

RUN NAME: EXT 65 NORTH OF 193+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

62.81      10.46      7.79

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

16.32      0.01      1.62

ADT: 15608      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.88

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
160.2      344.9      742.7      1599.8

RUN NAME: EXT 65 SOUTH OF 193      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
66.41      11.06      8.23  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
12.09      0.01      1.20

ADT: 18800      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.69  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
155.6      334.9      721.3      1553.6

RUN NAME: EXT 65 SOUTH OF 193+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
66.75      11.11      8.28  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
11.69      0.01      1.16

ADT: 18713      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.56  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
152.5      328.4      707.3      1523.4

## **F4. FHWA Noise Modeling Results**

### **3. Existing and Existing Plus Project Traffic Noise Levels under the Haul Route Alternative**

**Traffic Noise Levels (FHWA) Ext & Ext+Pro under Alt. Haul Route Alt.**

RUN NAME: EXT RIOSA EAST      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
---	-----	-----
AUTOS		
54.86	9.13	6.80
M-TRUCKS		
0.85	0.05	0.10
H-TRUCKS		
25.66	0.01	2.54

ADT: 1950    SPEED: 25    ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT    GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.17  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----	-----	-----
0.0	0.0	105.7    227.3

RUN NAME: EXT RIOSA EAST+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
---	-----	-----
AUTOS		
58.26	9.70	7.22
M-TRUCKS		
0.85	0.05	0.10
H-TRUCKS		
21.66	0.01	2.14

ADT: 1848    SPEED: 25    ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT    GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.24  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----	-----	-----
0.0	0.0	91.7    197.1

RUN NAME: EXT RIOSA DT      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

62.27      10.37      7.72

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

16.96      0.01      1.68

ADT: 2950      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.29

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----      -----      -----  
0.0      0.0      107.7      231.6

RUN NAME: EXT RIOSA DT+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

76.69      12.77      9.51

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

0.01      0.01      0.01

ADT: 1670      SPEED: 25      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 51.07

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----      -----      -----      -----  
0.0      0.0      0.0      0.0

RUN NAME: EXT CAMP FAR      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

26.57      4.42      3.30

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

58.87      0.01      5.82

ADT: 850      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.03  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----      -----      -----  
0.0      0.0      103.4      222.5

RUN NAME: EXT CAMP FAR+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

31.13      5.18      3.86

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

53.52      0.01      5.29

ADT: 748      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.07  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----      -----      -----  
0.0      0.0      89.3      192.1

RUN NAME: EXT KARCHNER      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
19.89      3.31      2.47  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
66.72      0.01      6.60

ADT: 750      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 64.01  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      103.3      222.1

RUN NAME: EXT KARCHNER+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
24.10      4.01      2.99  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
61.78      0.01      6.11

ADT: 648      SPEED: 25      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.05  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
0.0      0.0      89.1      191.7

RUN NAME: EXT 65 NORTH OF RIOSA      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
69.48      11.57      8.62  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
8.48      0.01      0.84

ADT: 15000      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.62  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
113.4      243.9      525.3      1131.4

RUN NAME: EXT 65 NORTH OF RIOSA+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
69.53      11.58      8.62  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
8.42      0.01      0.83

ADT: 14990      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.59  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
112.8      242.8      522.8      1126.0

RUN NAME: EXT 65 SOUTH OF RIOSA      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

69.13      11.51      8.57

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.90      0.01      0.88

ADT: 14300      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.55

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
112.2      241.3      519.7      1119.3

RUN NAME: EXT 65 SOUTH OF RIOSA+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---      -----      -----  
AUTOS

69.62      11.59      8.63

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

8.32      0.01      0.82

ADT: 14208      SPEED: 55      ACTIVE HALF WIDTH (FT): 6

SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 74.33

\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*

70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
108.3      233.0      501.8      1080.8

RUN NAME: EXT 65 NORTH OF 193      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
62.40      10.39      7.74  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
16.80      0.01      1.66

ADT: 15700      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 77.00  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
163.1      351.1      756.2      1628.9

RUN NAME: EXT 65 NORTH OF 193+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY      EVENING      NIGHT

---      -----      -----  
AUTOS  
62.81      10.46      7.79  
M-TRUCKS  
0.85      0.05      0.10  
H-TRUCKS  
16.32      0.01      1.62

ADT: 15608      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.88  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----  
160.2      344.9      742.7      1599.8

RUN NAME: EXT 65 SOUTH OF 193      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---

AUTOS

66.41      11.06      8.23

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

12.09      0.01      1.20

ADT: 18800      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.69  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----

155.6      334.9      721.3      1553.6

RUN NAME: EXT 65 SOUTH OF 193+PRO      RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY      EVENING      NIGHT

---

AUTOS

66.75      11.11      8.28

M-TRUCKS

0.85      0.05      0.10

H-TRUCKS

11.69      0.01      1.16

ADT: 18713      SPEED: 55      ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT      GRADE (PERCENT): .5

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 76.56  
\*\* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \*\*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----

152.5      328.4      707.3      1523.4

RUN NAME: EXT NEW HAUL ROUTE+PRO

RUN DATE: 2-26-2004

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
---	-----	-----
AUTOS		
47.57	7.92	5.90
M-TRUCKS		
0.85	0.05	0.10
H-TRUCKS		
34.21	0.01	3.38

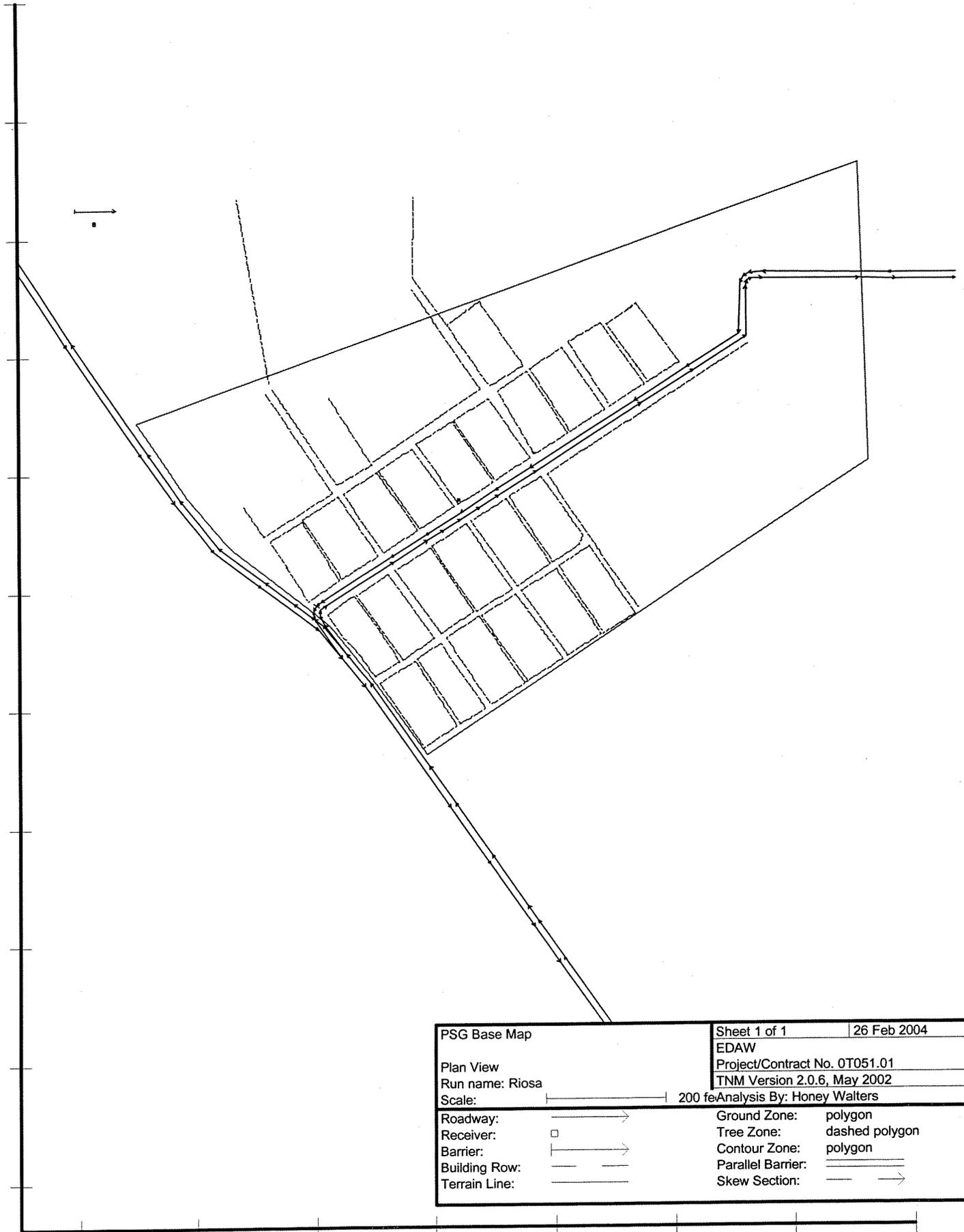
ADT: 1170    SPEED: 25    ACTIVE HALF WIDTH (FT): 6  
SITE CHARACTERISTICS: SOFT    GRADE (PERCENT): .5

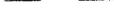
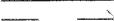
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE = 63.13  
\* \* DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL \* \*  
70 CNEL 65 CNEL 60 CNEL 55 CNEL

-----	-----	-----	-----
0.0	0.0	90.2	194.0

## **F4. FHWA Noise Modeling Results**

### **4. Existing Plus Project TNM Noise Modeling Results**



PSG Base Map		Sheet 1 of 1	26 Feb 2004
Plan View		EDAW	
Run name: Riosa		Project/Contract No. 0T051.01	
Scale: 		TNM Version 2.0.6, May 2002	
		Analysis By: Honey Walters	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

-119400      -119200      -119000      -118800      -118600      -118400      -118200      -118000



Station	Point	Easting	Northing	Offset	Station	Point	Easting	Northing	Offset
Riosa WB Int. 65	point395	-119,000.1	107,777.7	0.00	Stop	0.00			100
	point383	-119,004.4	107,769.1	0.00	Average	0.00			
	point384	-119,005.3	107,761.6	0.00	Average	0.00			
	point385	-119,002.9	107,755.0	0.00	Average	0.00			
	point386	-118,957.2	107,688.6	0.00	Average	0.00			
Riosa EB East of 11th	point405	-118,756.8	107,922.7	0.00	Average	0.00			
	point785	-118,725.0	107,943.0	0.00	Average	0.00			
	point780	-118,693.3	107,963.3	0.00	Average	0.00			
	point396	-118,629.7	108,003.9	0.00	Average	0.00			
	point781	-118,452.8	108,116.8	0.00	Average	0.00			
	point786	-118,364.3	108,173.2	0.00	Average	0.00			
	point348	-118,275.9	108,229.7	0.00	Average	0.00			
	point349	-118,276.0	108,314.0	0.00	Average	0.00			
	point350	-118,273.0	108,322.8	0.00	Average	0.00			
	point351	-118,265.5	108,327.6	0.00	Average	0.00			
	point352	-118,248.0	108,328.0	0.00	Average	0.00			
	point430	-118,086.6	108,326.8	0.00	Average	0.00			
	point493	-118,026.1	108,326.3	0.00	Average	0.00			
Highway 65 N	point353	-117,925.2	108,325.5	0.00	Average	0.00			
	point568	-118,510.0	107,069.2	0.00	Average	0.00			
	point569	-118,586.8	107,179.1	0.00	Average	0.00			
	point590	-118,630.1	107,241.7	0.00	Average	0.00			
	point585	-118,647.0	107,266.1	0.00	Average	0.00			
	point479	-118,707.2	107,353.2	0.00	Average	0.00			
	point482	-118,767.8	107,441.4	0.00	Average	0.00			
	point453	-118,811.1	107,504.4	0.00	Average	0.00			
	point282	-118,909.1	107,646.3	0.00	Average	0.00			
	point342	-118,948.6	107,695.1	0.00	Average	0.00			
	point283	-118,988.2	107,743.9	0.00	Average	0.00			
	point357	-119,002.9	107,755.0	0.00	Average	0.00			
	point317	-119,007.8	107,758.7	0.00	Average	0.00			
	point312	-119,037.1	107,780.9	0.00	Average	0.00			
	point285	-119,086.0	107,817.9	0.00	Average	0.00			
	point286	-119,162.7	107,876.6	0.00	Average	0.00			
	point287	-119,229.0	107,958.3	0.00	Average	0.00			
	point288	-119,284.0	108,038.5	0.00	Average	0.00			
	point289	-119,411.4	108,226.2	0.00	Average	0.00			
	point290	-119,523.0	108,399.5	0.00	Average	0.00			
Highway 65 S	point270	-119,532.1	108,391.8	0.00	Average	0.00			
	point271	-119,421.0	108,220.8	0.00	Average	0.00			

point272	272	-119,295.0	108,033.9	0.00					Average
point273	273	-119,238.8	107,953.2	0.00					Average
point274	274	-119,172.0	107,870.0	0.00					Average
point275	275	-119,092.6	107,809.7	0.00					Average
point276	276	-118,996.4	107,736.5	0.00					Average
point358	358	-118,957.2	107,688.6	0.00					Average
point277	277	-118,918.1	107,640.6	0.00					Average
point423	423	-118,776.1	107,434.5	0.00					Average
point419	419	-118,709.4	107,337.8	0.00					Average
point572	572	-118,636.5	107,232.2	0.00					Average
point566	566	-118,594.3	107,170.8	0.00					Average
point567	567	-118,518.3	107,063.1	0.00					Average



INPUT: TRAFFIC FOR Lden

0T051.01

Riosa EB East of 11th	point405	405	1424	80	82	96	10	1	1	1	10	17	15	1	10	1	1	1	10	1	1	1	10
	point785	785	1424	80	82	96	15	1	1	1	15	17	15	1	15	1	1	1	15	1	1	1	15
	point780	780	1424	80	82	96	20	1	1	1	20	17	15	1	20	1	1	1	20	1	1	1	20
	point396	396	1424	80	82	96	25	1	1	1	25	17	15	1	25	1	1	1	25	1	1	1	25
	point781	781	1424	80	82	96	20	1	1	1	20	17	15	1	20	1	1	1	20	1	1	1	20
	point786	786	1424	80	82	96	20	1	1	1	20	17	15	1	20	1	1	1	20	1	1	1	20
	point348	348	1424	80	82	96	15	1	1	1	15	17	15	1	15	1	1	1	15	1	1	1	15
	point349	349	1424	80	82	96	15	1	1	1	15	17	15	1	10	1	1	1	10	1	1	1	15
	point350	350	1424	80	82	96	15	1	1	1	15	17	15	1	10	1	1	1	10	1	1	1	15
	point351	351	1424	80	82	96	10	1	1	1	15	17	15	1	10	1	1	1	10	1	1	1	15
	point352	352	1424	80	82	96	25	1	1	1	25	17	15	1	20	1	1	1	20	1	1	1	25
	point430	430	1424	80	82	96	35	1	1	1	35	17	15	1	25	1	1	1	25	1	1	1	35
	point493	493	1424	80	82	96	35	1	1	1	35	17	15	1	35	1	1	1	35	1	1	1	35
	point353	353																					
Highway 65 N	point568	568	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point569	569	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point590	590	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point585	585	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point479	479	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point482	482	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point453	453	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point282	282	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point342	342	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point283	283	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point357	357	7500	88	93	93	50	1	1	1	50	9	4	4	50	1	1	1	50	1	1	1	50
	point317	317	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point312	312	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point285	285	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point286	286	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point287	287	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point288	288	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point289	289	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point290	290																					
Highway 65 S	point270	270	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point271	271	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point272	272	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point273	273	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point274	274	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point275	275	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point276	276	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point358	358	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point277	277	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point423	423	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50

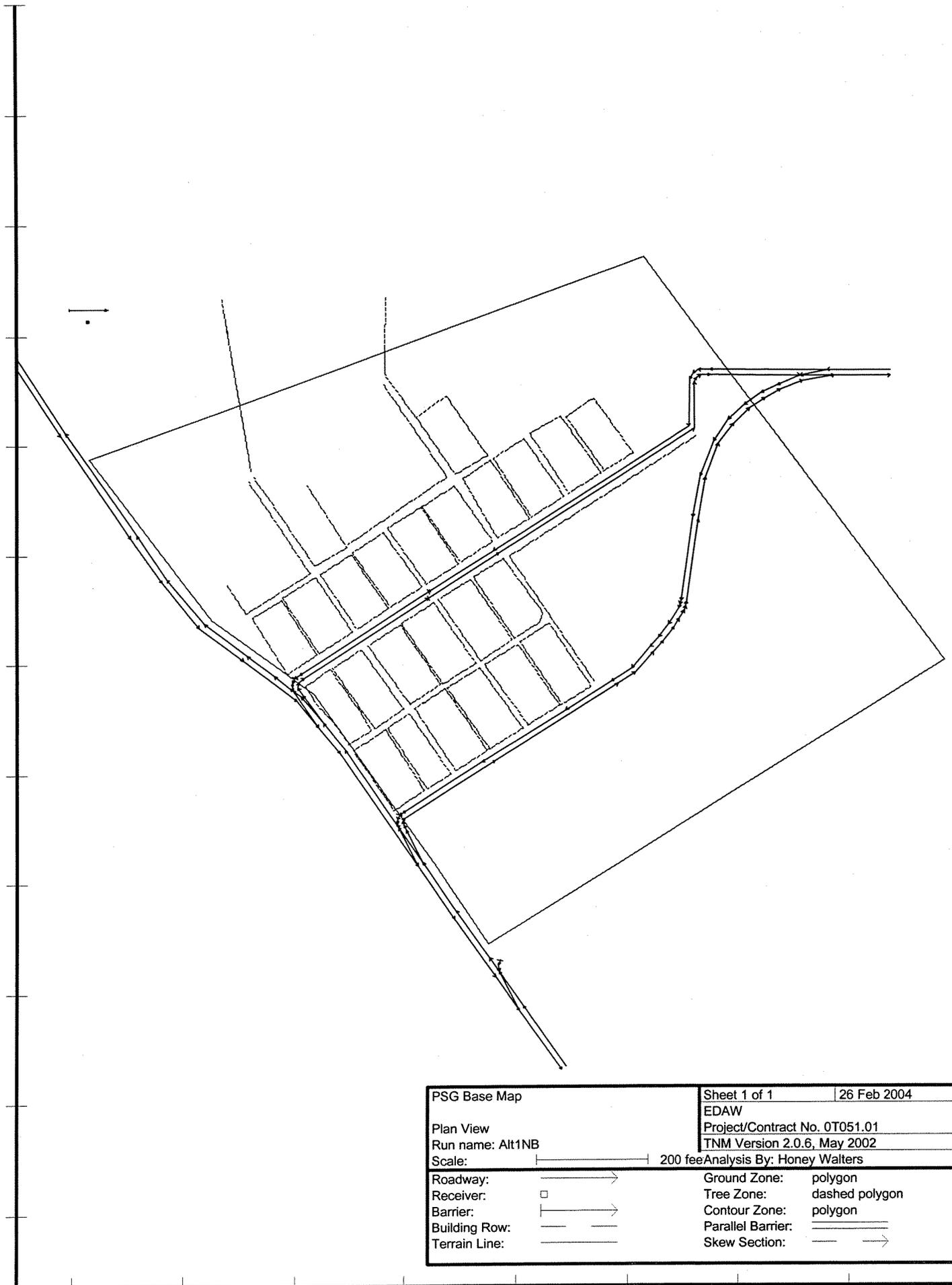
INPUT: TRAFFIC FOR Lden

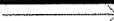
0T051.01

	point419	419	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point572	572	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point566	566	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point567	567																					

## **F4. FHWA Noise Modeling Results**

- 5. Existing Plus Project TNM Noise Modeling Results  
under Haul Route Alternative Alignment 1**



PSG Base Map		Sheet 1 of 1	26 Feb 2004
Plan View		EDAW	
Run name: Alt1NB		Project/Contract No. 0T051.01	
Scale:  200 feet		TNM Version 2.0.6, May 2002	
		Analysis By: Honey Walters	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

-119400      -119200      -119000      -118800      -118600      -118400      -118200      -118000      -117800

INPUT: ROADWAYS

0T051.01

EDAW						26 February 2004				
Honey Walters						TNM 2.0				
INPUT: ROADWAYS						Average pavement type shall be used unless				
PROJECT/CONTRACT:			0T051.01			a State highway agency substantiates the use				
RUN:			PSG Base Map			of a different type with the approval of FHWA				
Roadway		Points								
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment
				X	Y	Z	Control	Speed	Percent	Pvmt
							Device	Constraint	Vehicles	Type
									Affected	On
	ft			ft	ft	ft		mph	%	Struct?
Riosa EB West of 11th	12.0	point343	343	-118,948.6	107,695.1	0.00				Average
		point344	344	-118,985.5	107,745.9	0.00				Average
		point345	345	-118,994.0	107,760.6	0.00				Average
		point346	346	-118,993.0	107,770.5	0.00				Average
		point347	347	-118,983.5	107,778.0	0.00				Average
		point404	404	-118,756.8	107,922.7	0.00				
Riosa WB East of 11th	12.0	point376	376	-117,924.7	108,335.8	0.00				Average
		point415	415	-118,039.0	108,336.6	0.00				Average
		point377	377	-118,247.3	108,338.0	0.00				Average
		point389	389	-118,269.5	108,337.0	0.00				Average
		point378	378	-118,279.0	108,331.1	0.00				Average
		point379	379	-118,285.3	108,319.9	0.00				Average
		point380	380	-118,287.5	108,234.1	0.00				Average
		point390	390	-118,639.6	108,009.0	0.00				Average
		point393	393	-118,757.0	107,934.0	0.00				
Riosa WB West B/t Stops	12.0	point394	394	-118,757.0	107,934.0	0.00	Stop	0.00	100	Average
		point381	381	-118,991.7	107,783.9	0.00				Average
		point382	382	-119,000.1	107,777.7	0.00				
Riosa WB Int. 65	12.0	point395	395	-119,000.1	107,777.7	0.00	Stop	0.00	100	Average
		point383	383	-119,004.4	107,769.1	0.00				Average
		point384	384	-119,005.3	107,761.6	0.00				Average
		point385	385	-119,002.9	107,755.0	0.00				Average
		point386	386	-118,957.2	107,688.6	0.00				
Riosa EB East of 11th	12.0	point405	405	-118,756.8	107,922.7	0.00	Stop	0.00	100	Average
		point396	396	-118,629.7	108,003.9	0.00				Average
		point348	348	-118,275.9	108,229.7	0.00				Average

INPUT: ROADWAYS

0T051.01

		point349	349	-118,276.0	108,314.0	0.00			Average
		point350	350	-118,273.0	108,322.8	0.00			Average
		point351	351	-118,265.5	108,327.6	0.00			Average
		point352	352	-118,248.0	108,328.0	0.00			Average
		point430	430	-118,086.6	108,326.8	0.00			Average
		point493	493	-118,026.1	108,326.3	0.00			Average
		point353	353	-117,925.2	108,325.5	0.00			
E St WB	12.0	point455	455	-118,039.0	108,336.6	0.00			Average
		point456	456	-118,086.6	108,326.8	0.00			Average
		point457	457	-118,128.4	108,308.9	0.00			Average
		point458	458	-118,157.0	108,294.6	0.00			Average
		point459	459	-118,186.4	108,273.1	0.00			Average
		point460	460	-118,215.6	108,246.5	0.00			Average
		point461	461	-118,242.5	108,207.2	0.00			Average
		point462	462	-118,267.1	108,142.8	0.00			Average
		point463	463	-118,280.3	108,068.4	0.00			Average
		point464	464	-118,302.1	107,915.9	0.00			Average
		point688	688	-118,304.3	107,909.2	0.00			Average
		point465	465	-118,306.5	107,902.6	0.00			Average
		point466	466	-118,325.1	107,874.0	0.00			Average
		point467	467	-118,342.8	107,849.7	0.00			Average
		point468	468	-118,358.5	107,831.8	0.00			Average
		point470	470	-118,392.6	107,793.8	0.00			Average
		point471	471	-118,429.1	107,770.2	0.00			Average
		point472	472	-118,510.5	107,718.2	0.00			Average
		point610	610	-118,660.3	107,623.3	0.00			Average
		point622	622	-118,804.0	107,532.3	0.00			Average
		point473	473	-118,810.2	107,528.4	0.00			
Highway 65 N	12.0	point568	568	-118,510.0	107,069.2	0.00			Average
		point569	569	-118,586.8	107,179.1	0.00			Average
		point590	590	-118,630.1	107,241.7	0.00			Average
		point585	585	-118,647.0	107,266.1	0.00			Average
		point479	479	-118,707.2	107,353.2	0.00			Average
		point482	482	-118,767.8	107,441.4	0.00			Average
		point453	453	-118,811.1	107,504.4	0.00			Average
		point282	282	-118,909.1	107,646.3	0.00			Average
		point342	342	-118,948.6	107,695.1	0.00			Average
		point283	283	-118,988.2	107,743.9	0.00			Average
		point357	357	-119,002.9	107,755.0	0.00			Average
		point317	317	-119,007.8	107,758.7	0.00			Average

INPUT: ROADWAYS

0T051.01

		point312	312	-119,037.1	107,780.9	0.00				Average
		point285	285	-119,086.0	107,817.9	0.00				Average
		point286	286	-119,162.7	107,876.6	0.00				Average
		point287	287	-119,229.0	107,958.3	0.00				Average
		point288	288	-119,284.0	108,038.5	0.00				Average
		point289	289	-119,411.4	108,226.2	0.00				Average
		point290	290	-119,523.0	108,399.5	0.00				
Highway 65 S	12.0	point270	270	-119,532.1	108,391.8	0.00				Average
		point271	271	-119,421.0	108,220.8	0.00				Average
		point272	272	-119,295.0	108,033.9	0.00				Average
		point273	273	-119,238.8	107,953.2	0.00				Average
		point274	274	-119,172.0	107,870.0	0.00				Average
		point275	275	-119,092.6	107,809.7	0.00				Average
		point276	276	-118,996.4	107,736.5	0.00				Average
		point358	358	-118,957.2	107,688.6	0.00				Average
		point277	277	-118,918.1	107,640.6	0.00				Average
		point423	423	-118,776.1	107,434.5	0.00				Average
		point419	419	-118,709.4	107,337.8	0.00				Average
		point572	572	-118,636.5	107,232.2	0.00				Average
		point566	566	-118,594.3	107,170.8	0.00				Average
		point567	567	-118,518.3	107,063.1	0.00				
E St WB Int. 65	12.0	point609	609	-118,810.2	107,528.4	0.00	Stop	0.00	100	Average
		point475	475	-118,813.7	107,520.0	0.00				Average
		point476	476	-118,812.9	107,511.5	0.00				Average
		point477	477	-118,811.1	107,504.4	0.00				Average
		point478	478	-118,776.1	107,434.5	0.00				
E St EB	12.0	point662	662	-118,767.8	107,441.4	0.00				Average
		point663	663	-118,797.1	107,500.1	0.00				Average
		point664	664	-118,802.2	107,509.0	0.00				Average
		point666	666	-118,803.9	107,517.1	0.00				Average
		point667	667	-118,800.2	107,522.2	0.00				Average
		point668	668	-118,637.0	107,625.3	0.00				Average
		point773	773	-118,417.5	107,765.4	0.00				Average
		point671	671	-118,386.1	107,785.4	0.00				Average
		point673	673	-118,351.9	107,822.7	0.00				Average
		point674	674	-118,335.4	107,842.7	0.00				Average
		point675	675	-118,315.5	107,868.5	0.00				Average
		point708	708	-118,306.3	107,883.3	0.00				Average
		point691	691	-118,297.0	107,898.0	0.00				Average
		point765	765	-118,294.0	107,906.5	0.00				Average

point677	677	-118,293.0	107,915.1	0.00			Average
point678	678	-118,270.2	108,063.8	0.00			Average
point679	679	-118,257.5	108,141.1	0.00			Average
point680	680	-118,233.2	108,202.3	0.00			Average
point681	681	-118,206.9	108,239.0	0.00			Average
point683	683	-118,177.4	108,266.8	0.00			Average
point684	684	-118,150.6	108,285.8	0.00			Average
point685	685	-118,122.8	108,301.1	0.00			Average
point686	686	-118,083.1	108,316.7	0.00			Average
point687	687	-118,026.1	108,326.3	0.00			Average
point770	770	-118,628.9	107,262.4	0.00	Stop	0.00	Average
Alt 2 WB Int 65	12.0					100	
point722	722	-118,631.2	107,252.6	0.00			Average
point723	723	-118,630.1	107,241.7	0.00			Average
point724	724	-118,594.3	107,170.8	0.00			Average

0T051.01

INPUT: ROADWAYS

INPUT: TRAFFIC FOR Lden

OT051.01

EDAW

Honey Walters

26 February 2004  
TNM 2.0

INPUT: TRAFFIC FOR Lden

PROJECT/CONTRACT:

RUN: OT051.01

PSG Base Map

Roadway		Points		Segment		Autos			MTrucks			HTrucks			Buses			Motorcycles					
Name	No.	Name	ADT	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S
			veh/24hrs	%	%	%	mph	mph	%	%	mph	mph	%	%	mph	mph	%	%	mph	mph	%	%	mph
Riosa EB West of 11th	343	point343	835	96	96	96	30	1	1	1	30	1	1	1	1	30	1	1	1	30	1	1	30
	344	point344	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	345	point345	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	346	point346	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	347	point347	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	404	point404																					
Riosa WB East of 11th	376	point376	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25
	415	point415	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25
	377	point377	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	389	point389	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	378	point378	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	379	point379	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	380	point380	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25
	390	point390	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	393	point393																					
Riosa WB West B/t Stops	394	point394	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	381	point381	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	382	point382																					
Riosa WB Int. 65	395	point395	721	96	96	96	25	1	1	1	20	1	1	1	1	20	1	1	1	25	1	1	25
	383	point383	721	96	96	96	25	1	1	1	20	1	1	1	1	20	1	1	1	25	1	1	25
	384	point384	721	96	96	96	25	1	1	1	20	1	1	1	1	20	1	1	1	25	1	1	25
	385	point385	721	96	96	96	30	1	1	1	30	1	1	1	1	30	1	1	1	30	1	1	30
	386	point386																					
Riosa EB East of 11th	405	point405	835	96	96	96	20	1	1	1	20	1	1	1	1	20	1	1	1	20	1	1	20
	396	point396	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25
	348	point348	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	349	point349	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	350	point350	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	351	point351	835	96	96	96	15	1	1	1	15	1	1	1	1	15	1	1	1	15	1	1	15
	352	point352	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25
	430	point430	835	96	96	96	25	1	1	1	25	1	1	1	1	25	1	1	1	25	1	1	25



INPUT: TRAFFIC FOR Lden

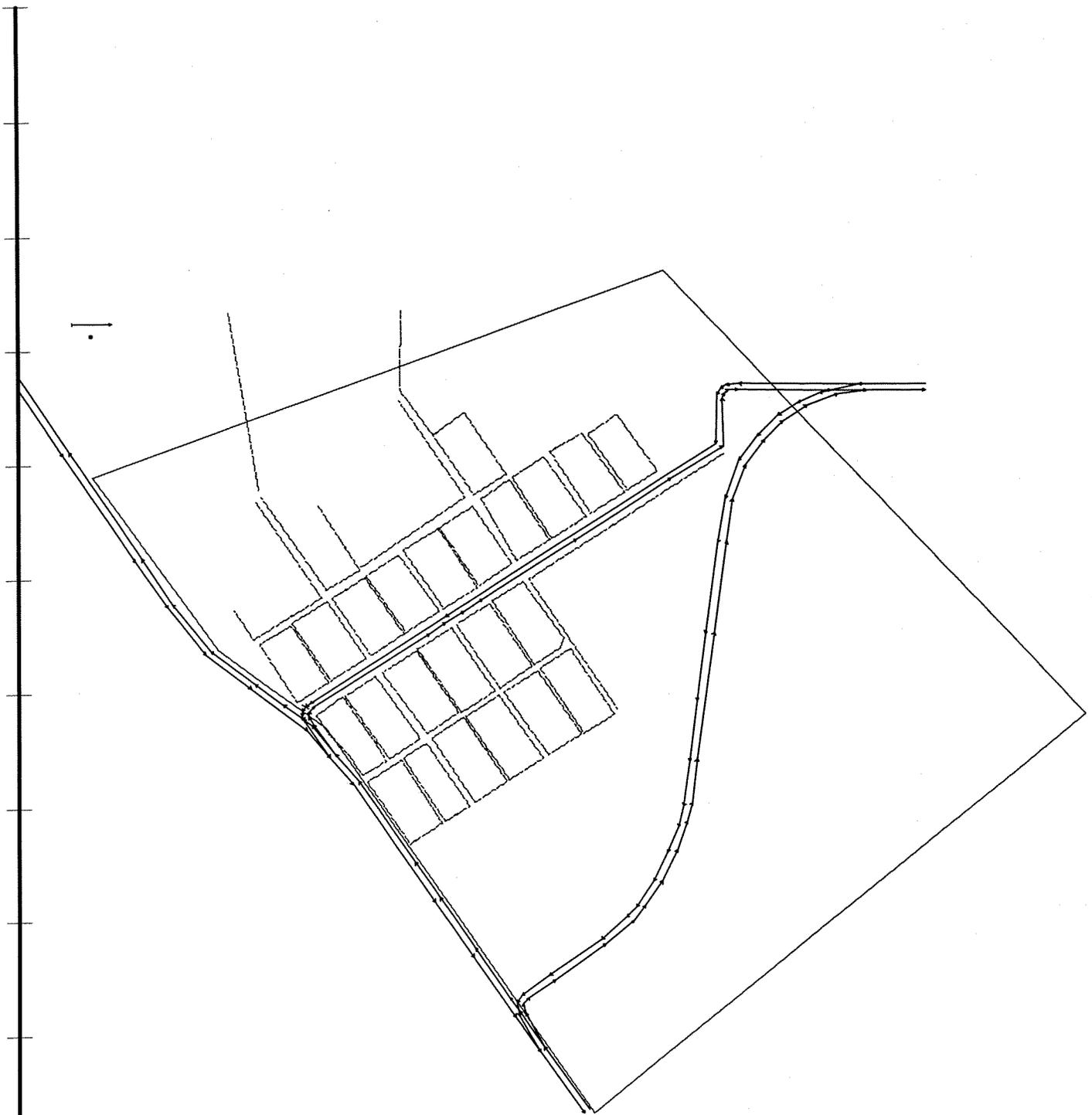
0T051.01

	point271	271	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point272	272	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point273	273	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point274	274	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point275	275	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point276	276	7500	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point358	358	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point277	277	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point423	423	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point419	419	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point572	572	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point566	566	7100	96	96	96	50	1	1	1	50	1	1	1	50	1	1	1	50	1	1	1	50
	point567	567																					
E St WB Int. 65	point609	609	604	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point475	475	604	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point476	476	604	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point477	477	604	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point478	478																					
E St EB	point662	662	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point663	663	585	57	62	96	20	1	1	1	20	40	35	1	20	1	1	1	20	1	1	1	20
	point664	664	585	57	62	96	15	1	1	1	15	40	35	1	15	1	1	1	15	1	1	1	15
	point666	666	585	57	62	96	15	1	1	1	15	40	35	1	15	1	1	1	15	1	1	1	15
	point667	667	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point668	668	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point773	773	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point671	671	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point673	673	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point674	674	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point675	675	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point708	708	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point691	691	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point765	765	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point677	677	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point678	678	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point679	679	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point680	680	585	57	62	96	30	1	1	1	30	40	35	1	30	1	1	1	30	1	1	1	30
	point681	681	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point683	683	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point684	684	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point685	685	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point686	686	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point687	687																					
Alt 2 WB Int 65	point770	770	0	96	96	96	25	1	1	1	20	1	1	1	20	1	1	1	25	1	1	1	25



## **F4. FHWA Noise Modeling Results**

### **6. Existing Plus Project TNM Noise Modeling Results under Haul Route Alternative Alignment 2**



PSG Base Map		Sheet 1 of 1	26 Feb 2004
Plan View		EDAW	
Run name: Alt2		Project/Contract No. 0T051.01	
Scale: 		TNM Version 2.0.6, May 2002	
		Analysis By: Honey Walters	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	



point794	-118,528.8	108,068.2	0.00	Average
point792	-118,364.3	108,173.2	0.00	Average
point348	-118,275.9	108,229.7	0.00	Average
point349	-118,276.0	108,314.0	0.00	Average
point350	-118,273.0	108,322.8	0.00	Average
point351	-118,265.5	108,327.6	0.00	Average
point352	-118,248.0	108,328.0	0.00	Average
point430	-118,086.6	108,326.8	0.00	Average
point493	-118,026.1	108,326.3	0.00	Average
point353	-117,925.2	108,325.5	0.00	Average
point568	-118,510.0	107,069.2	0.00	Average
point569	-118,586.8	107,179.1	0.00	Average
point590	-118,630.1	107,241.7	0.00	Average
point585	-118,647.0	107,266.1	0.00	Average
point479	-118,707.2	107,353.2	0.00	Average
point482	-118,767.8	107,441.4	0.00	Average
point453	-118,811.1	107,504.4	0.00	Average
point282	-118,909.1	107,646.3	0.00	Average
point342	-118,948.6	107,695.1	0.00	Average
point283	-118,988.2	107,743.9	0.00	Average
point357	-119,002.9	107,755.0	0.00	Average
point317	-119,007.8	107,758.7	0.00	Average
point312	-119,037.1	107,780.9	0.00	Average
point285	-119,086.0	107,817.9	0.00	Average
point286	-119,162.7	107,876.6	0.00	Average
point287	-119,229.0	107,958.3	0.00	Average
point288	-119,284.0	108,038.5	0.00	Average
point289	-119,411.4	108,226.2	0.00	Average
point290	-119,523.0	108,399.5	0.00	Average
point270	-119,532.1	108,391.8	0.00	Average
point271	-119,421.0	108,220.8	0.00	Average
point272	-119,295.0	108,033.9	0.00	Average
point273	-119,238.8	107,953.2	0.00	Average
point274	-119,172.0	107,870.0	0.00	Average
point275	-119,092.6	107,809.7	0.00	Average
point276	-118,996.4	107,736.5	0.00	Average
point358	-118,957.2	107,688.6	0.00	Average
point277	-118,918.1	107,640.6	0.00	Average
point423	-118,776.1	107,434.5	0.00	Average
point419	-118,709.4	107,337.8	0.00	Average

Highway 65 S

12.0

Highway 65 N

12.0

INPUT: ROADWAYS

0T051.01

		point572	572	-118,636.5	107,232.2	0.00			Average
		point566	566	-118,594.3	107,170.8	0.00			Average
		point567	567	-118,518.3	107,063.1	0.00			
Roadway120	12.0	point796	796	-118,039.0	108,336.6	0.00			Average
		point797	797	-118,106.8	108,321.2	0.00			Average
		point798	798	-118,145.2	108,305.0	0.00			Average
		point799	799	-118,179.6	108,282.8	0.00			Average
		point800	800	-118,216.0	108,246.3	0.00			Average
		point801	801	-118,248.4	108,203.9	0.00			Average
		point802	802	-118,272.6	108,137.1	0.00			Average
		point803	803	-118,284.8	108,060.2	0.00			Average
		point804	804	-118,307.0	107,900.4	0.00			Average
		point805	805	-118,323.2	107,783.1	0.00			Average
		point806	806	-118,335.4	107,677.9	0.00			Average
		point807	807	-118,345.5	107,599.0	0.00			Average
		point808	808	-118,355.6	107,562.6	0.00			Average
		point809	809	-118,373.8	107,518.1	0.00			Average
		point810	810	-118,398.1	107,467.5	0.00			Average
		point811	811	-118,428.4	107,423.0	0.00			Average
		point812	812	-118,444.6	107,404.8	0.00			Average
		point813	813	-118,489.1	107,366.4	0.00			Average
		point814	814	-118,578.1	107,303.7	0.00			Average
		point815	815	-118,626.6	107,269.3	0.00			Average
		point816	816	-118,634.7	107,257.1	0.00			Average
		point817	817	-118,630.7	107,232.9	0.00			Average
		point818	818	-118,594.3	107,170.8	0.00			
Roadway121	12.0	point819	819	-118,586.8	107,179.1	0.00			Average
		point820	820	-118,620.6	107,238.9	0.00			Average
		point821	821	-118,624.6	107,255.1	0.00			Average
		point822	822	-118,612.5	107,265.2	0.00			Average
		point823	823	-118,568.0	107,295.6	0.00			Average
		point824	824	-118,481.0	107,358.3	0.00			Average
		point825	825	-118,432.5	107,398.7	0.00			Average
		point826	826	-118,412.2	107,425.0	0.00			Average
		point827	827	-118,381.9	107,467.5	0.00			Average
		point828	828	-118,357.6	107,522.1	0.00			Average
		point829	829	-118,339.4	107,572.7	0.00			Average
		point830	830	-118,331.3	107,605.1	0.00			Average
		point831	831	-118,323.2	107,681.9	0.00			Average
		point832	832	-118,292.9	107,902.4	0.00			Average

INPUT: ROADWAYS

0T051.01

		point833	833	-118,270.6	108,062.2	0.00				Average	
		point834	834	-118,260.5	108,137.1	0.00				Average	
		point835	835	-118,236.2	108,195.8	0.00				Average	
		point836	836	-118,203.9	108,240.3	0.00				Average	
		point837	837	-118,171.5	108,272.6	0.00				Average	
		point838	838	-118,129.0	108,301.0	0.00				Average	
		point839	839	-118,076.4	108,319.2	0.00				Average	
		point840	840	-118,026.1	108,326.3	0.00					





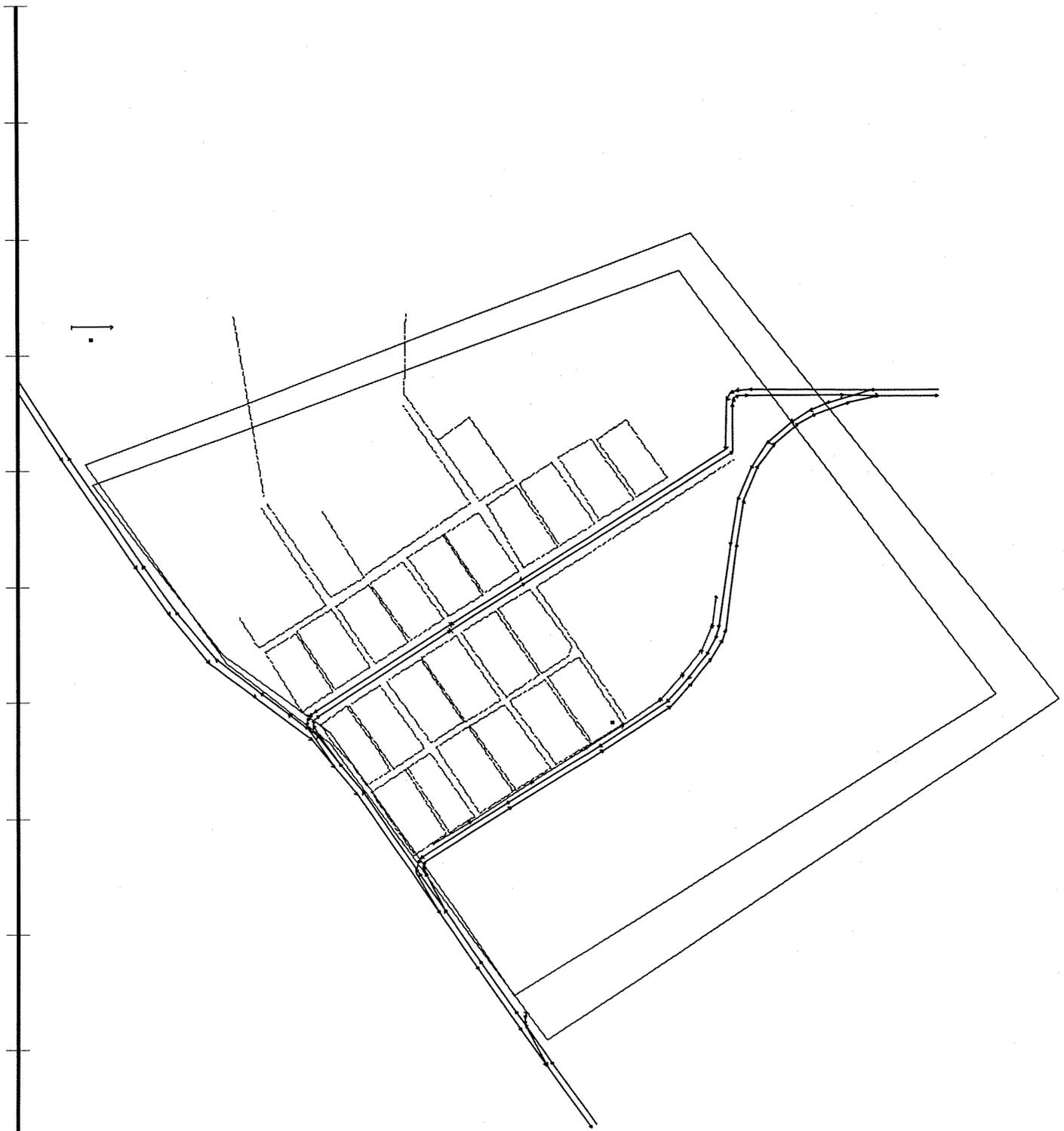
INPUT: TRAFFIC FOR Lden

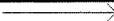
OT051.01

	point801	801	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point802	802	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point803	803	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point804	804	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point805	805	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point806	806	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point807	807	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point808	808	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point809	809	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point810	810	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point811	811	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point812	812	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point813	813	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point814	814	585	57	62	96	20	1	1	1	20	40	35	1	20	1	1	1	20	1	1	1	20
	point815	815	585	57	62	96	15	1	1	1	15	40	35	1	15	1	1	1	15	1	1	1	15
	point816	816	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point817	817	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point818	818																					
Roadway121	point819	819	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point820	820	585	57	62	96	15	1	1	1	15	40	35	1	15	1	1	1	15	1	1	1	15
	point821	821	585	57	62	96	15	1	1	1	15	40	35	1	15	1	1	1	15	1	1	1	15
	point822	822	585	57	62	96	20	1	1	1	20	40	35	1	20	1	1	1	20	1	1	1	20
	point823	823	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point824	824	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point825	825	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point826	826	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point827	827	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point828	828	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point829	829	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point830	830	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point831	831	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point832	832	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point833	833	585	57	62	96	25	1	1	1	25	40	35	1	25	1	1	1	25	1	1	1	25
	point834	834	585	57	62	96	30	1	1	1	30	40	35	1	30	1	1	1	30	1	1	1	30
	point835	835	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point836	836	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point837	837	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point838	838	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point839	839	585	57	62	96	35	1	1	1	35	40	35	1	35	1	1	1	35	1	1	1	35
	point840	840																					

## **F4. FHWA Noise Modeling Results**

### **7. Existing Plus Project TNM Noise Modeling Results under Haul Route Alternative Alignment 1 (with Mitigation)**



PSG Base Map		Sheet 1 of 1	26 Feb 2004
Plan View		EDAW	
Run name: Alt1WB		Project/Contract No. 0T051.01	
Scale: 		TNM Version 2.0.6, May 2002	
		Analysis By: Honey Walters	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

119400      -119200      -119000      -118800      -118600      -118400      -118200      -118000      -117800



INPUT: ROADWAYS

OT051.01

		point349	349	-118,276.0	108,314.0	0.00			Average
		point350	350	-118,273.0	108,322.8	0.00			Average
		point351	351	-118,265.5	108,327.6	0.00			Average
		point352	352	-118,248.0	108,328.0	0.00			Average
		point430	430	-118,086.6	108,326.8	0.00			Average
		point493	493	-118,026.1	108,326.3	0.00			Average
		point353	353	-117,925.2	108,325.5	0.00			
Highway 65 N	12.0	point568	568	-118,510.0	107,069.2	0.00			Average
		point569	569	-118,586.8	107,179.1	0.00			Average
		point590	590	-118,630.1	107,241.7	0.00			Average
		point585	585	-118,647.0	107,266.1	0.00			Average
		point479	479	-118,707.2	107,353.2	0.00			Average
		point482	482	-118,767.8	107,441.4	0.00			Average
		point453	453	-118,811.1	107,504.4	0.00			Average
		point282	282	-118,909.1	107,646.3	0.00			Average
		point342	342	-118,948.6	107,695.1	0.00			Average
		point283	283	-118,988.2	107,743.9	0.00			Average
		point357	357	-119,002.9	107,755.0	0.00			Average
		point317	317	-119,007.8	107,758.7	0.00			Average
		point312	312	-119,037.1	107,780.9	0.00			Average
		point285	285	-119,086.0	107,817.9	0.00			Average
		point286	286	-119,162.7	107,876.6	0.00			Average
		point287	287	-119,229.0	107,958.3	0.00			Average
		point288	288	-119,284.0	108,038.5	0.00			Average
		point289	289	-119,411.4	108,226.2	0.00			Average
		point290	290	-119,523.0	108,399.5	0.00			
Highway 65 S	12.0	point270	270	-119,532.1	108,391.8	0.00			Average
		point271	271	-119,421.0	108,220.8	0.00			Average
		point272	272	-119,295.0	108,033.9	0.00			Average
		point273	273	-119,238.8	107,953.2	0.00			Average
		point274	274	-119,172.0	107,870.0	0.00			Average
		point275	275	-119,092.6	107,809.7	0.00			Average
		point276	276	-118,996.4	107,736.5	0.00			Average
		point358	358	-118,957.2	107,688.6	0.00			Average
		point277	277	-118,918.1	107,640.6	0.00			Average
		point423	423	-118,776.1	107,434.5	0.00			Average
		point419	419	-118,709.4	107,337.8	0.00			Average
		point572	572	-118,636.5	107,232.2	0.00			Average
		point566	566	-118,594.3	107,170.8	0.00			Average
		point567	567	-118,518.3	107,063.1	0.00			

**INPUT: ROADWAYS**

**0T051.01**

Alt 2 WB Int 65	12.0	point770	770	-118,628.9	107,262.4	0.00	Stop	0.00	100	Average
		point722	722	-118,631.2	107,252.6	0.00				Average
		point723	723	-118,630.1	107,241.7	0.00				Average
		point724	724	-118,594.3	107,170.8	0.00				
Roadway115	12.0	point774	774	-118,767.8	107,441.4	0.00				Average
		point775	775	-118,801.0	107,505.5	0.00				Average
		point776	776	-118,805.3	107,516.2	0.00				Average
		point777	777	-118,801.0	107,524.8	0.00				Average
		point778	778	-118,653.9	107,618.2	0.00				Average
		point779	779	-118,498.3	107,715.9	0.00				Average
		point780	780	-118,384.5	107,790.0	0.00				Average
		point781	781	-118,348.0	107,829.7	0.00				Average
		point782	782	-118,313.6	107,872.6	0.00				Average
		point783	783	-118,294.3	107,904.8	0.00				Average
		point784	784	-118,288.9	107,923.1	0.00				Average
		point785	785	-118,269.6	108,071.2	0.00				Average
		point786	786	-118,256.7	108,146.4	0.00				Average
		point787	787	-118,232.0	108,205.4	0.00				Average
		point788	788	-118,204.1	108,244.1	0.00				Average
		point789	789	-118,163.3	108,278.4	0.00				
Roadway116	12.0	point790	790	-118,163.3	108,278.4	0.00				Average
		point791	791	-118,134.9	108,295.1	0.00				Average
		point792	792	-118,076.9	108,314.4	0.00				Average
		point793	793	-118,026.1	108,326.3	0.00				
Roadway117	12.0	point794	794	-118,039.0	108,336.6	0.00				Average
		point795	795	-118,116.1	108,313.8	0.00				Average
		point796	796	-118,144.8	108,300.0	0.00				Average
		point797	797	-118,176.6	108,280.9	0.00				Average
		point798	798	-118,217.0	108,243.8	0.00				Average
		point799	799	-118,244.6	108,201.3	0.00				Average
		point800	800	-118,268.0	108,147.1	0.00				Average
		point801	801	-118,280.7	108,068.6	0.00				Average
		point802	802	-118,300.9	107,925.2	0.00				Average
		point803	803	-118,306.2	107,906.1	0.00				Average
		point804	804	-118,322.1	107,879.6	0.00				Average
		point805	805	-118,354.0	107,838.2	0.00				Average
		point806	806	-118,390.1	107,797.8	0.00				Average
		point807	807	-118,505.8	107,722.4	0.00				Average
		point808	808	-118,661.9	107,624.8	0.00				Average
		point809	809	-118,808.4	107,531.3	0.00				Average



EDAW		26 February 2004																						
Honey Walters		TNM 2.0																						
INPUT: TRAFFIC FOR Lden																								
PROJECT/CONTRACT:		0T051.01																						
RUN:		PSG Base Map																						
Roadway Name	Points																							
	Name	No.	Segment	Autos				MTrucks				HTrucks				Buses				Motorcycles				
			ADT	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S	%D	%E	%N	S	
			veh/24hrs	%	%	%	mph	%	%	%	mph	%	%	%	mph	%	%	%	mph	%	%	%	mph	
Riosa EB West of 11th	point343	343	835	96	96	96	30	1	1	1	30	1	1	1	30	1	1	1	30	1	1	1	30	
	point344	344	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point345	345	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point346	346	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point347	347	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point404	404																						
Riosa WB East of 11th	point376	376	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	
	point415	415	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	
	point377	377	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point389	389	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point378	378	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point379	379	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point380	380	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	
	point390	390	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point393	393																						
Riosa WB West B/t Stops	point394	394	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point381	381	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point382	382																						
Riosa WB Int. 65	point395	395	721	96	96	96	25	1	1	1	20	1	1	1	20	1	1	1	25	1	1	1	25	
	point383	383	721	96	96	96	25	1	1	1	20	1	1	1	20	1	1	1	25	1	1	1	25	
	point384	384	721	96	96	96	25	1	1	1	20	1	1	1	20	1	1	1	25	1	1	1	25	
	point385	385	721	96	96	96	30	1	1	1	30	1	1	1	30	1	1	1	30	1	1	1	30	
	point386	386																						
Riosa EB East of 11th	point405	405	835	96	96	96	20	1	1	1	20	1	1	1	20	1	1	1	20	1	1	1	20	
	point396	396	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	
	point348	348	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point349	349	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point350	350	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point351	351	835	96	96	96	15	1	1	1	15	1	1	1	15	1	1	1	15	1	1	1	15	
	point352	352	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	
	point430	430	835	96	96	96	25	1	1	1	25	1	1	1	25	1	1	1	25	1	1	1	25	



